

*American*

# FORESTS

MAY 1941





# DO YOU KNOW

What Are the Greatest Causes of  
Damage in An "A" Bomb Blast?

(See Answer Below)

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should equip now with

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ANSWER: In their order these are  
(1) fire, (2) blast, (3) radiation.

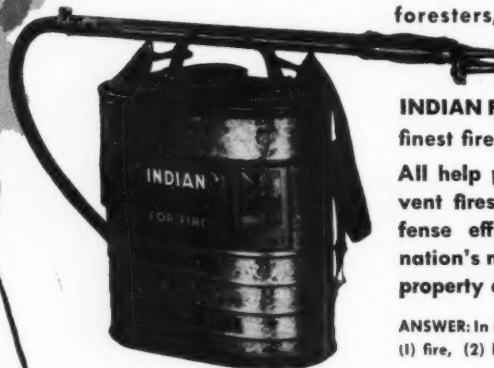


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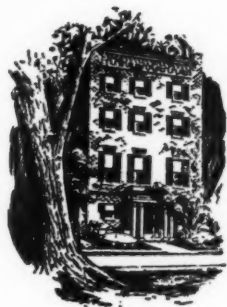
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**Editor-in-Chief**  
S. L. Frost

**Managing Editor**  
Nort Baser

**Assistant Editor**  
Keith R. McCarthy

**Editorial Assistant**  
Billie R. Lacy

**Art Director**  
James J. Fisher

**Director of Advertising**  
Fred E. Hornaday

**Advertising Representatives**

George W. Stearns  
420 Lexington Avenue  
New York City

Harry W. Brown  
333 North Michigan Avenue  
Chicago, Illinois

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The American Forestry Association, publishers of *American Forests*, is a national organization— independent and non-political in character—for the advancement of intelligent management and use of forests and related resources of soil, water, wildlife and outdoor recreation. Its purpose is to create an enlightened public appreciation of these resources and the part they play in the social and economic life of the nation. Created in 1875, it is the oldest national forest conservation organization in America.

# American FORESTS

PUBLISHED BY THE AMERICAN FORESTRY ASSOCIATION

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## Cover . . . . .

*No matter if he's fishing for fun or for the frying pan, all this native of Tennessee's Tellico Plains needs to get into the spirit of another fishing season is a stout branch from a near-by tree, a hook, line and can of angle worms. New-fangled fly rods, reels and pretty lures are all right for city folks, but our down-to-earth Tennessean allows he can brag as loud while carrying home his big fish or tell just as colorful a tale about the one that got away as any man who ever wet a line. Clint Davis, who authored the Smokey Bear article last month, took this picture on the Cherokee National Forest.*



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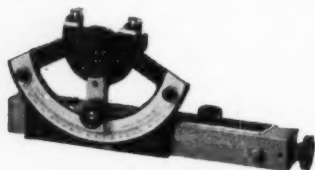


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## American FORESTS

# Forum

**In This Issue**—Folks born and bred in the city too often don't know what makes their country cousins tick, much less realize how important land and erosion problems are to us all. For that matter, there are still many tillers of the soil who haven't fully grasped that loss of topsoil can put them out of business and create national chaos. Walter R. Humphrey, editor of the *Fort Worth Press*, proved himself an earthy urbanite by conceiving and sponsoring in the name of his paper a campaign offering incentive awards to landowners for improved conservation methods.

The story of his program unfolds in *Save the Soil and Save Texas* (page 6). Written by **Delbert Willis** of the Fort Worth Press staff, the article should prove excellent reading for any one having even an idle interest in conservation, and it's loaded with hints for those who might wish to introduce similar programs in their communities. Incidentally, it was this public service effort that won for Mr. Humphrey one of AFA's coveted Conservation Awards in 1949.

*The Battle of the Secretaries* (page 10), shedding light on little known facets of an unsuccessful attempt during the Harding administration to transfer the National Forests from Agriculture to Interior, will undoubtedly whet the reader's appetite to read the rest of the forthcoming book, *Forests and Men*, from which this preview chapter comes.

The book is a story of the great conservation crusade to save America's forests and is told for the layman, the student, the professional forester—for anyone interested in another fabulous aspect of the American scene. It is scheduled for publication May 17 by Doubleday and Company, and will be available to AFA members at the usual discount. **Col. William B. Greeley**, an AFA director, chief of the U. S. Forest Service from 1920 to 1928, and since then, a leading spokesman for industry in his roles as secretary of the West Coast Lumbermen's Association and chairman of AFPI's Board, is the author.

This being the season when many

of us take a closer look at our newly green yards, it seems like a timely occasion to present **Margaret I. Jardine's** informative and interesting *Small Trees for Home Grounds* (page 18). A landscape architect of wide repute in the area surrounding her Shirley, Massachusetts home, the author offers advice we feel sure many readers will receive as a welcome guide in setting out new trees around their homes.

Other how-to-do offerings in the issue include building of *Camp Stoves* (page 20) for semipermanent camps, another easy to follow set of instructions by **William N. Harwood** of Pocatello, Idaho, and *Keswick Erases Erosion* (page 21) in which **William M. Carah**, acting information officer for the Bureau of Reclamation's Region 2 in Sacramento, California tells how erosion control and reforestation is progressing on the Keswick Reservoir watershed near Redding.

In the strictly tree category, you'll find **M. Woodbridge Williams' The California Buckeye** (page 26) and Part II of the Association's *Report on American Big Trees* (page 24) which covers from Crapemyrtle through Hornbeam. And don't miss *Davy and the Traveling Tree* (page 13), another of **James Stevens' Davy Crockett legends** which merits reading right through the final period. Also on the lighter side is a fishing article, *All the Angles—Almost* in which **Robert Ingalls** of Chicago talks dangerously about his wife.

For a north of the border report, we offer *U. S. Presses Can Rely on Canada*, in which **Robson Black**, president emeritus of the Canadian Forestry Association, reports on the Dominion's progress in managing its forests for pulpwood. For an eye-pleasing treat, there's *Interpreting the Primeval Scene*, an exceptional pictorial view of National Parks and Monuments beauty as seen through the lenses of Ansel Adams' camera. The scenes are from his latest book *Portfolio Two*. In *Washington Look-out* (page 4), **G. H. Collingwood** reports on discussions during Access Timber Roads hearings, then tells us what's going on in Congress regard-

(Turn to page 35)



# 3 ways TO KILL SCRUB TREES with Du Pont "Ammate"

**TIMBER GROWTH IMPROVES** as much as \$3 more per acre each year after scrub trees have been killed, forest owners report. They may get this increase with the use of as little as 30 to 40 cents' worth of "Ammate" weed killer per acre. "Ammate" kills blackjack oak, gum, sassafras, elm, willow and other weed trees with little or no resprouting.

Ask for the free booklet "Improvement of Pine Timber Stands with Du Pont 'Ammate.'" Write to Du Pont, Grasselli Chemicals Dept., 5031 Du Pont Bldg., Wilmington, Del. For supplies of "Ammate" see the Du Pont distributor in your area. "Ammate" is a registered trade mark of Du Pont for ammonium sulfamate weed killer.



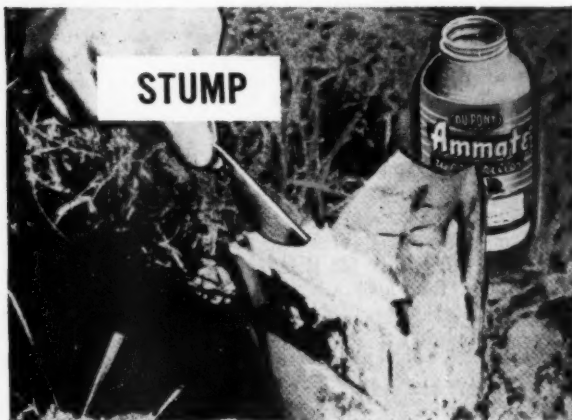
BETTER THINGS FOR BETTER LIVING  
... THROUGH CHEMISTRY



FRILL

1

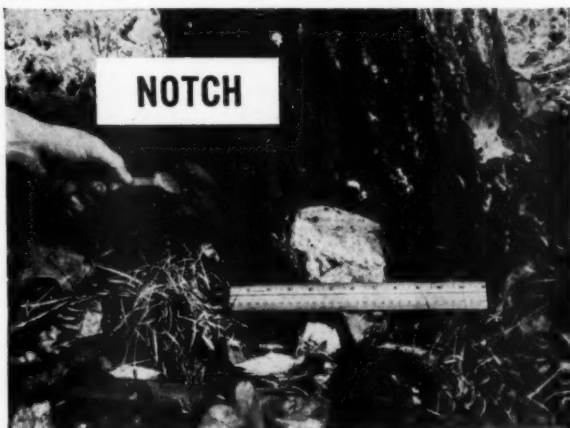
Hack into the sapwood with overlapping cuts around the tree trunk. Pour in enough "Ammate" solution (4 lbs. to a gal. of water) to wet the cut surface all the way around the tree. This method is especially useful to kill large trees.



STUMP

2

Cut small trees close to the ground, leaving a V-shape stump. Pour a tablespoonful of "Ammate" crystals in the V. You can also use "Ammate" on larger stumps to prevent resprouting.



NOTCH

3

Chop out a slanting chip close to the ground. Repeat every 6 inches around the trunk. Pour a tablespoonful of "Ammate" crystals in each notch. This method deadens even tough blackjack oak with little resprouting.

## WASHINGTON LOOKOUT

By G. H. COLLINGWOOD

**Timber access roads**, capable of increasing annual crops of the National Forests by one-third and adding some \$20,000,000 a year to their gross revenues were discussed on March 15, during a public hearing before the forestry subcommittee of the House Committee on Agriculture. Sitting with Chairman Thomas G. Abernathy, of Mississippi, were Representatives Pat Sutton, of Tennessee, W. M. Wheeler, of Georgia, A. S. Herling, Jr., of Florida, William S. Hill, of Colorado, Paul B. Dague, of Pennsylvania, and Harold C. Oster-tag, of New York, together with Delegate E. L. Bartlett, of Alaska. Subject of the hearing was House Joint Resolution 60, introduced by Democratic Representative Clair Engle, of California. Consideration was also given identical bills introduced by Republican Representatives Harris Ellsworth and Lowell Stockman, of Oregon, and Russell V. Mack, of Washington, (H.J. Res. 88, H.J. Res. 178, and H.J. Res. 110).

H.J. Res. 60 would authorize annual appropriations of \$30,000,000 over five years with which to "provide a suitable and adequate system of timber access roads to and in the forests of the United States." Of these annual sums, \$25,000,000 would go to the Department of Agriculture for the Forest Service, and \$5,000,000 to the Department of the Interior for the Oregon and California Shortline Railroad Revested lands, as well as other lands administered by the Bureau of Indian Affairs.

Representative Ellsworth described present road facilities in the National Forests and the O and C lands as already taxed to the limit. To supply vast quantities of lumber needed for the defense effort in which the nation is now engaged he urged approval of the resolution. In doing so he referred to existing laws which authorize annual appropriations for forest roads and trails, and for forest highways. Each provides avenues of transportation to serve administrative purposes. Each contributes to forest protection by providing communication with various parts of the forest and serves the many recreationists. For the present, however, no appro-

priations are authorized for which justification would be construction roads for timber access only. This, he said, would be met by H.J. Res. 60.

Included in Mr. Ellsworth's statement were letters from the Longshoremen's and Warehousemen's Union in Oregon, the Oregon chapter of the International Woodworkers of America, The Oregon Industrial Union Council, and the Portland Industrial Union Council. In various ways these letters declared that access roads are vital to the national defense, to the employment of thousands of people, and to the protection and conservation of the forests.

**Assistant Chief Forester C. M. Granger** testified that the expenditure of approximately \$100,000,000 on access roads would open hitherto inaccessible areas in the National Forests on which annual tree growth is now wasting for lack of an outlet. Under the sustained yield program as operated on the National Forests, this could be harvested as annual crops in excess of two billion board feet. The yield of 3380 million board feet during the fiscal year ending June 30, 1950 could thus have approached the estimated sustained yield of six billion board feet. With stumpage values averaging around \$10 a thousand board feet, the proposed access roads could thus be credited with adding some \$20,000,000 to the gross income of the Forest Service.

Less detailed but in similar vein were statements by Walter H. Horning and George S. Kephart, Interior Department foresters responsible respectively for timber sales on the O and C lands, and on the Indian Reservations. Harold O. Holman and Mathias Niewenhaus, speaking in behalf of the National Production Administration and the Defense Production Administration, urged approval of the legislation. So, also, did R. A. Colgan, Jr., executive vice president of the National Lumber Manufacturers Association. The latter, speaking in behalf of the organized lumber industry, declared that a well-planned, economical timber ac-

cess public road program is a major need and should be given high priority by government agencies. He urged enactment of the resolution that the pressure of defense requirements for forest products might be "distributed on private and public lands in proper ratio."

The NLMA declaration of support was qualified by an assertion that roads should be built at the *lowest practical cost to make timber accessible*. Specifications for roads on public forest lands are frequently too high and they should be reviewed from the standpoint of *emergency* timber access road construction. Over-building wastes time, manpower, materials and equipment. This raised a vigorous defense from Assistant Chief Forester Granger. He compared costs of timber access roads built by private loggers with those built for comparable use by the Forest Service and challenged anyone to identify a Forest Service road whose specifications or cost was excessive in relation to the demands upon it.

**Reorganization bills** for the Departments of the Interior and Agriculture, in accordance with recommendations made more than two years ago by the Hoover Commission, were introduced in the Senate and House on March 15 and 19. Joined by impressive bi-partisan groups, Senator Herbert R. O'Connor, of Maryland, and Senator George D. Aiken, of Vermont, introduced S. 1143 and S. 1149 relating respectively to the Department of the Interior and the Department of Agriculture. In the House, Representative Clare Hoffman, of Michigan, introduced similar bills as H.R. 3309 and H.R. 3308. Each Senate bill is referred to the Committee on Expenditures in Executive Departments, of which Senator John L. McClellan, of Arkansas, is chairman. The House bills are referred to the Committees on Interior and Insular Affairs, and Agriculture, of which Representatives John R. Murdock, of Arizona, and Harold D. Cooley, of North Carolina are the chairmen.

Under these bills the Department of the Interior would be reorganized with four major divisions: the Water Development and Use Service, the Building Construction Service, the Minerals Resources Service, and the Recreation Service. On a similar functional basis, the Department of Agriculture would be divided into eight major services: Staff, Research, Agricultural Consultation, Agricultural Resources Conservation, Com-

modity Marketing and Adjustment, Agricultural Credit, and Rural Electrification Service.

Comment is reserved to those services of special interest to readers of this column. The Recreation Service would carry out functions of the Department of the Interior relating to public parks and monuments, wildlife, and game fisheries. This includes the National Park Service without change, and the wildlife and game fish responsibilities of the Fish and Wildlife Service. It would not include commercial fisheries, which would be transferred to the Department of Commerce under S. 1141, also introduced by Senator O'Connor.

To correct what the Hoover Commission described as "duplication and overlap of efforts" existing between the Army Engineers and the Bureau of Reclamation, S. 1143 would transfer to the Department of the Interior the functions of the Corps of Engineers, insofar as they relate to flood control and the improvement of rivers and harbors, together with those of the Board of Engineers for Rivers and Harbors, the Mississippi River Commission, and the California Debris Commission where they would be incorporated in the Water Development and Use Service.

Under Secretary Brannan's memorandum of February 15, the Agricultural Resources Conservation Commission already includes the Forest Service and the Soil Conservation Service. S. 1149 would complete this phase of the Hoover Commission recommendations by transferring from the Department of the Interior to the Department of Agriculture all functions of the Bureau of Land Management, except those dealing with mining and mineral resources, which would become a part of Interior's Mineral Resources Service. Additional support of the Department of Agriculture reorganization, which became effective last February, is found in Section 10, which would authorize creation of state and county agricultural councils. The bill states that their function shall be "to administer on the state and local levels the programs of the Agricultural Resources Conservation Service and the Commodity Marketing and Adjustment Service."

Whether the Senate bills will be referred to the Committee on Agriculture and Forestry, and to the Committee on Interior and Insular Affairs is now under consideration; but for the present, at least, no hearings on either Senate or House bills have been scheduled.



## LET'S GO TRAIL RIDING

A chance to get away from the congested cities and crowded highways, riding remote trails, fishing in white waters, exploring nature's last primitive strongholds on horse or by canoe—all these are the wilderness vacation opportunities offered by The American Forestry Association's Trail Riders of the Wilderness. The 13 expeditions for 1951 include two canoe trips. Dates to fit your vacation schedule are:

- June 4-15—Pecos Wilderness, Santa Fe National Forest, New Mexico—\$205 from Santa Fe
- July 5-16—Flathead-Sun River Wilderness, Flathead and Lewis and Clark National Forests, Montana—\$175 from Missoula
- July 10-19—Quetico-Superior canoe trip, Minnesota and the Canadian border—\$170 from Ely, Minn.
- July 16-27—Flathead-Sun River Wilderness, Flathead and Lewis and Clark National Forests, Montana—\$175 from Missoula
- July 22-31—Quetico-Superior canoe trip, Minnesota and the Canadian border—\$170 from Ely, Minn.
- July 24-August 2—Maroon Bells-Snowmass Wilderness, White River National Forest, Colorado—\$190 from Aspen
- July 24-August 3—Sawtooth Wilderness, Sawtooth and Boise National Forests, Idaho—\$188 from Sun Valley
- August 7-16—Maroon Bells-Snowmass Wilderness, White River National Forest, Colorado—\$190 from Aspen
- August 7-17—Sawtooth Wilderness, Sawtooth and Boise National Forests, Idaho—\$188 from Sun Valley
- August 13-25—Cascade Crest Wilderness, Snoqualmie and Columbia National Forests, Washington—\$188 from Yakima
- August 20-September 1—Olympic Wilderness, Olympic National Park, Washington—\$200 from Lake Crescent
- August 29-September 10—Inyo-Kern Wilderness, Inyo and Sequoia National Forests, California—\$205 from Lone Pine
- September 4-15—Pecos Wilderness, Santa Fe National Forest, New Mexico—\$205 from Santa Fe

*Write or wire for detailed information and reservations*

### THE AMERICAN FORESTRY ASSOCIATION

919 Seventeenth Street, N. W.  
Washington 6, D. C.





# The Fort Worth Press

Weather: Partly cloudy, warm and windy tonight and tomorrow, slightly cooler tomorrow afternoon.

VOL. 30, NO. 143

FORT WORTH, TEXAS, FRIDAY, MARCH 16, 1961

24 PAGES

HOME  
EDITION  
PRICE FIVE CENTS

## SAVE THE SOIL AND SAVE TEXAS

*Little Help Given Grand Jury in Payoff Probe*

By DELBERT WILLIS

THE gas company executive and the farmer broke bread and chatted like old friends. They had never met before, but they found common talk with ease.

Presently the executive arose, congratulated the farmer and handed him a check for \$1000. Cameras clicked. The executive grinned. The farmer beamed. Microphones were cleared for a short acceptance speech. Ringing applause thundered from the 700 persons who crowded The Texas Hotel's big ballroom in Fort Worth.

What brought the gas official and the farmer together? Why was a public utility interested in giving an unknown farmer \$1000? What interests did they share?

The answers to those questions may be found in The Fort Worth Press' "Save the Soil and Save Texas" conservation awards program. More specifically, it's traceable to Walter R. Humphrey, editor of The Press, who stumbled onto a good story and conceived an idea. What makes the story even more remarkable is that The Press has chiefly an urban readership and Mr. Humphrey is strictly a city product.

Yet the \$13,000 soil saving program covers all of Texas and is familiar to farmers hundreds of miles beyond the paper's circulation area.

Last year 13,000 entries were received in the essay competition alone, and this is only one of the 18 divisions in the program. "Save the Soil" has received the unanimous endorsement and cooperation of the state's 160 soil conservation districts, the State Soil Conservation Board, the U. S. Soil Conservation Service, 24 organizations and clubs which supply the money to make the project go.

The Press program has received nation-wide acclaim and the praise of such notables as Agriculture Secretary Charles Brannan, Soil Conservation Chief Hugh Bennett, Author-Conservationist Louis Bromfield, and others. Other newspapers — metropolitan newspapers — in other states have followed The Press lead.

Mr. Humphrey, a big, easy-going editor with a congenial, disarming personality, is justly proud of his brain child. But he can't help smiling when he recalls what other editors told him when he jumped into soil conservation with The Press.

It's a good thing, Walter, but after all, you've got a metropolitan newspaper. And what do you know about farming? You've spent all of your life at a typewriter. And your city readers—how are you going to tie in the city folks with the country people? And could you have picked a duller subject for news copy?

Walter Humphrey thought he had the answers to those questions in 1946, but he wasn't sure. He knew the city's economy was directly connected with the farm economy. When

M. J. Stewart, left, receives "outstanding farmer" award from F. Carmichael





A newspaper has rallied every corner of this sprawling state to the conservation crusade with a \$13,000 annual awards program supported by 24 business organizations. Competition for prizes is producing some outstanding projects

the farmer prospered, the city thrived.

But there was a greater reason than this. Walter Humphrey had been converted to the doctrine of soil conservation while serving as editor of the Temple Telegram. He brought that creed with him when he became editor of The Fort Worth Press in 1945. He saw the results of erosion on hillsides, abandoned farms that once produced fat cotton crops, deserted towns that died when the people left the sick soil and moved to more fertile fields. He saw Texas, the state with the prodigious natural resources, losing its most precious possession—its topsoil. The muddy rivers dumped tons of rich soil into the Gulf of Mexico every year.

As for dull copy, Walter Humphrey couldn't see that. Here was a moving story, a romantic story that even the city dweller would find fascinating.

The first "Save the Soil and Save Texas" program was launched with fanfare, but modestly, in 1946. It covered only 30 counties and 13 soil conservation districts in the North Central Texas circulation area of The Press.

There were only four awards that year—to the outstanding conservation district, the outstanding conservation community or group, the essay winner, and to the individual who had rendered the greatest unselfish service in soil conservation. The Fort Worth Lions Club inaugurated its practice of presenting plaques to the outstanding farmer in each conservation district.

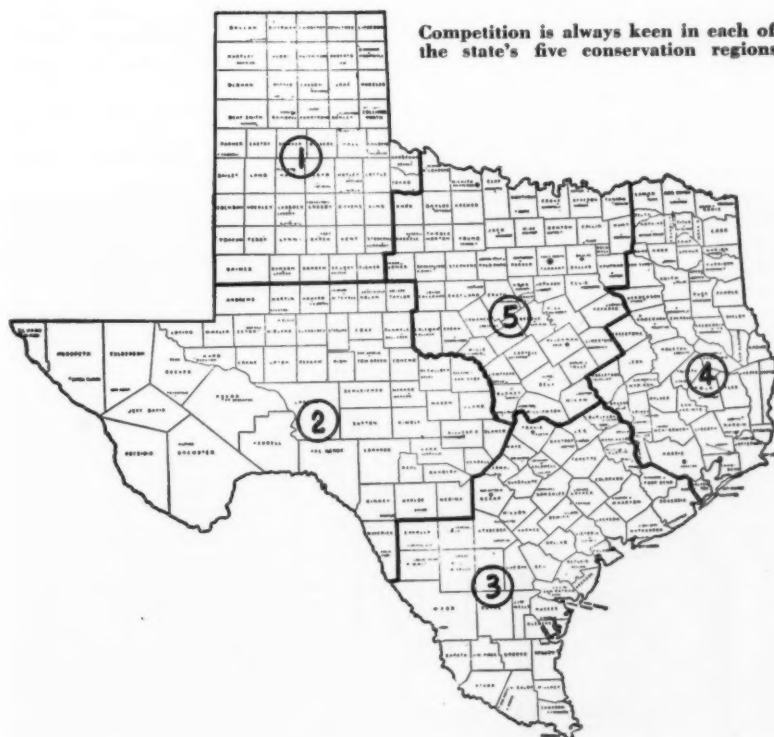
The Press also started its presentation of certificates to farmers who had completed a soil conservation plan on their land. This simple certificate later was to grace the living room walls of thousands of farmers over the state. The farmers took

great pride in showing friends and neighbors their "conservation diploma" which represented days of toil to get land in shape to take the hardest rains and the strongest winds without giving up rich layers of topsoil.

The success of that first program convinced Walter Humphrey he had something big. It also convinced him that he should expand the enterprise to state-wide proportions. In fact, at

the first awards banquet and in the newspaper's special conservation edition it was announced that the 1947 program would blanket the state. The speaker at the first awards banquet was an up-and-coming young Assistant Secretary of Agriculture, Charles F. Brannan.

In 1947, "Save the Soil and Save Texas" grew to manhood. Eighteen donors, including public utilities, department stores, packing plants, rail-



Competition is always keen in each of the state's five conservation regions

The McWhorter brothers, Todd, left, and Paul look over a stand of seedlings planted in 1946. These champion foresters farm two and a half sections north of Douglassville

roads, dairies, food manufacturers and civic organizations raised a \$10,000 jackpot—all of which went to the outstanding conservationists.

The State Soil Conservation Board divides Texas into five geographical regions. Awards were given to the champions in each of these regions in addition to the state winners.

The judges reached into South Texas to tag R. M. Boswell, of Kennedy, as the outstanding conservation farmer of the state, and into East Texas to designate the Kaufman-Van Zandt Soil District as the state's best district. The essay winner that year was Albert Ray Voelkel, of Nordheim, also in South Texas, the distance of an average state away from Fort Worth. The 1947 speaker was Dr. Hugh Bennett, Soil Conservation Service chief.

Last year this coveted medal attracted 13,000 entries from all parts of Texas



The following year the program was expanded to herald the farmer who had done the best job on a worn-out piece of land in addition to the outstanding farmer. The unselfish service to conservation award was limited to a non-farmer and it went to Dr. B. B. Harris, dean of the North Texas State College at Denton, who inaugurated a summer conservation course at the non-agricultural school. Writers of the best conservation editorials in daily and weekly newspapers also were given awards for the first time.

The sister Scripps-Howard papers of The Press in Texas, The Houston Press and The El Paso Herald-Post, joined in the sponsorship in 1948.

"Save the Soil" advanced another big stride in 1948. It recognized the link between soil conservation and forestry. A forestry award was made to the Hopkins-Rains-Wood District for its outstanding work in the preservation and growing of trees.

In 1949 the forestry award was placed on an individual basis and went to the McWhorter brothers, Paul and Todd, of Douglassville, for their woodland management program.

The brothers were given a \$200 check for their advanced pine seedling plan started only two years previously. More than 1200 acres of their farm was woodland. Four newspaper

awards, instead of two, were made for the best conservation advertisements and editorials in daily and weekly papers. Louis Bromfield was brought in to make the principal address.

As forestry had been wedded to the soil saving program in 1948, water conservation joined "Save the Soil" in 1949. The late Governor Beauford Jester was given a plaque for outstanding individual leadership in water conservation, and the Trinity River Improvement Association was named as the organization which had performed the most conspicuous job in the field.

Last year radio stations were ushered into the conservation awards family. Honored were Station KGNC, Amarillo, and Station KFRD, Rosenberg, as the large and small stations which had rendered the greatest conservation service.

The woman on the farm, the forgotten inspiration for many conservation achievements, found her glory at the big awards banquet in 1950. Through the cooperation of the Texas A. & M. Extension Service and the Home Demonstration Clubs of the state, a hard-working widow, Mrs. John H. Schmidt of New Ulm, was crowned "Queen of Conservation."

With all of these tie-ins, most persons thought Walter Humphrey had

covered the field completely with "Save the Soil and Save Texas." But he was not content to rest on his laurels.

What about wildlife conservation? he asked. Doesn't that have a place in the conservation picture? The Wildlife Management Institute quickly responded and agreed to give a plaque this year to the organization in Texas which had done the greatest work in the field of wildlife conservation. The plaque will be presented in May along with the other 18 state awards, at the annual conservation awards banquet in Fort Worth.

The state dinner is only one of many awards gatherings resulting from "Save the Soil." The Houston Press has its "banquet of champions" honoring all of the state conservation winners. The regional champions are crowned in colorful ceremonies at different cities each year in each of

have unearthed sparkling news copy. What about—

J. D. Inabinet, who moved to the farm to die at the age of 57. Doctors told him to take it easy, do nothing but gather eggs. J. D. Inabinet found a new life on the soil. The farm he settled was windblown like a desert. It was a challenge. It stimulated him. Last year, at the age of 75, he was named as the farmer who had done the greatest job in Texas in bringing back a worn-out piece of land.

Or Merrell Stewart, the hungry tenant farmer from the hungry sandy lands of Northeast Texas. In the 30's he worked like a slave to eke out an existence. Merrell Stewart was a dreamer. He dreamed of owning a "little piece of land with a white house and a red barn." Last year Skinny Stewart took the \$1,000 first prize as the most outstanding farmer in Texas. His dream was realized.

Or Mrs. Rose Drozd, the widow with seven children, who won the South Texas regional award for doing the best job with worn-out land.

Or the story of Gibtown, the once-prosperous cotton town in Jack County. It once supported a college, it had a spirit, a Masonic Hall and a booming cotton economy. But the land, cleared for cotton, washed away and the farmer had to leave. The school collapsed, the stores were torn down, the doctors took down their

shingles. Gibtown became a ghost town. Dull copy?

More than anything else, "Save the Soil" has cemented a friendly relationship between businessmen of the city and the farmers who till the land. They are meeting on a new plane with a common purpose—to save the soil for future generations. Bankers, industrialists, newspapers have become soil conservation conscious.

At their last state convention, the bankers went on record not only to cooperate with conservation districts, but to perfect organizations of bankers themselves to meet jointly with boards of soil supervisors and help them get the job done.

The Texas Association of Soil Conservation District Supervisors, meeting recently in Mineral Wells, voted to expand its activities and publish a magazine in the interests of soil conservation.

If "Save the Soil" helped in a small measure to kindle the flame of the conservation crusade, Mr. Humphrey is satisfied. It confirms his belief that soil conservation was and is a big thing.

The Press doesn't sponsor "Save the Soil" as a circulation or advertising promotion. Benefits from this approach practically are nil. The only reason The Press jumped into soil conservation was because Walter Humphrey thought it was a community service. It was something worthwhile for a paper to do. And still is.



C. F. Simpson, left, and Chas. McClure get checks for \$1000 from Ed Parker

the five state regions. Lions Clubs over the state cooperating with the Fort Worth Lions Club in awarding plaques to every outstanding district farmer, have special "conservation day" programs to honor their outstanding farmer. In all, more than 5,000 persons attend the "Save the Soil" award dinners.

The American Forestry Association recognized the program in 1949 by presenting Walter Humphrey with a plaque for outstanding service in the conservation of land, water and forest resources.

What's more, soil conservation technicians, local newspapers and The Press directors of the program

The late Governor Beauford Jester, center, is congratulated on his service citation by Editor Walter Humphrey, left, and Guy Jackson



# The Battle of the Secretaries

PRESIDENT Harding hailed the end of the war as a "return to normalcy." Some Americans of the old free land persuasion saw an opportunity to capitalize upon the political reaction and public revulsion to the disciplines of war. The days of free range and unreserved timber might be brought back. The setting was a bit like a western movie where "Gentry Rides Again." I followed Colonel Graves as Chief of the Forest Service in 1920. Soon after the inauguration of Harding, I sensed that his administration would give the Pinchot-Roosevelt conservation program some rough going.

Seldom has a more incongruous team been assembled in Washington than the first Harding cabinet. The leonine Charles E. Hughes, outstanding in moral and intellectual stature, rubbed elbows with fox-like Harry Daugherty, the master mind of political intrigue. The Secretary of the Interior, Albert B. Fall, was an unreconstructed apostle of the free-land, come-and-get-it traditions of the young West. But his opposite number, in the chair of Agriculture at the Cabinet table, was an able and forthright exponent of all the conservation of natural resources good for. Henry C. Wallace, the father of Henry A.

Wallace, Secretary of Agriculture in the first cabinet of Franklin Roosevelt, was not a crusader of the Pinchot type. He was a conservative and kept his feet always on solid ground. He had a farm-bred knowledge of land and people, a marvelous endowment of political sagacity, and a vast fund of humor. He was Scotch to his bristling red eyebrows, and he was the finest man I ever worked for.

At the first conference with his Bureau chiefs, Secretary Wallace told us about the traveler in the British Isles who wanted more sugar in his tea. If his hostess was Irish, she would pass the whole sugar bowl. An English hostess would ask: "One lump or two?" But a Scotch hostess would look him straight in the eye. "Hae ye stir-r-red up the bottom of yer cup?" The new Secretary made it quite clear that he expected the bottoms of all the cups to be stir-red up when we submitted our estimates for the next year's budget.

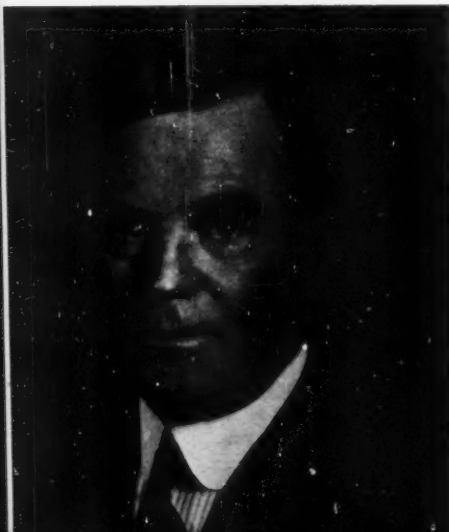
The new administration was not three months old when Secretary Wallace told me gravely that we must be on our guard. Some of his many newspaper friends had tipped him off. A scheme was brewing to turn the National Forests back to the Interior Department. A build-up in the press was coming, in the hope of rolling up political strength for repeal of the Act of 1905, which placed the Forest Reserves in the Department of Agriculture and set up the Forest Service for their administration. The main line of attack would be that "conservation" as then applied meant only locking up from use. The economic development of the West, her timber and power and livestock industries, were blocked by the theorists in the Forest Service. The prize exhibit of a shackled empire was Alaska. And the scheming centered in the Secretary of the Interior.

A number of attacks on the way the National Forests were being administered ran through the newspa-

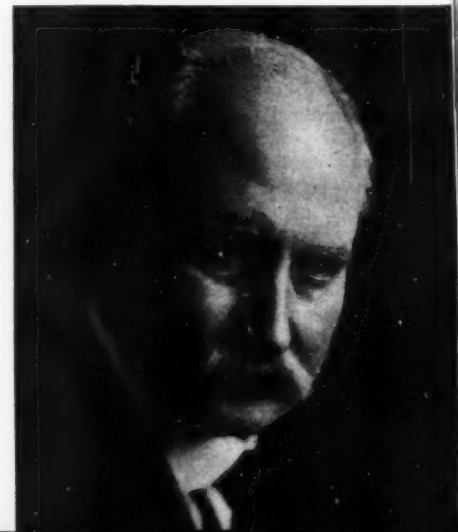
pers. They could all be threaded on a common string of impractical management. Portions of the western livestock industry were in revolt against reductions in the sheep and cattle admitted to National Forest ranges. In over-grazed areas, the Forest Service was holding generally to a gradual curtailment in the number of permitted animals, in the hope of restoring the carrying capacity of the forage. Many stockmen accepted and cooperated in this practical conservation of their own future, but often the grazing cuts were violently opposed. They brought forth unlimited argument over the unwritten "right" of the stock ranch to the use of the adjacent public ranges which formed a vital part of the pioneer's enterprise.

Some power companies, too, were restive over the discovery that Gifford Pinchot had beaten them to the draw by plastering all known dam and reservoir sites in the National Forests with administrative withdrawals. This left them no way to acquire title to the highly important lands on which their millions must be invested. The only recourse was to lease and operate under federal permit. Government ownership and control of the sources of hydroelectric power was a high

Henry C. Wallace, Secretary of Agriculture



Albert B. Fall, Secretary of the Interior





Here's the story—told by a behind-the-scenes participant—of an unsuccessful attempt to transfer the National Forests from Agriculture to Interior. A bitter struggle, it was one of many which characterized Harding's turbulent administration

By WILLIAM B. GREELEY

plank in the Pinchot platform of conservation.

There were always a few complaints over the handling of National Forest timber. Stumpage appraisals might be too high. The scale of logs might be too close. The restrictions on operating logging machines might be unreasonable or of excessive cost. These situations occasionally drifted into Washington on appeal from a District Forester's decision, and a sharp newspaper man could make a story of bureaucratic mismanagement out of any one of them.

All of these criticisms and attacks were part of the daily meat of the Forest Service. There seemed to be more of them in the first year of the Harding administration, but not enough to sound a general alarm. After all, they appeared to be just the usual rustling forays and not a range war. But our doubts were soon removed. Secretary Fall himself rode blustering into the roundup, chaparajos sweeping the grass and a gun on each hip.

The Secretary began to make speeches and to give press interviews in which he attacked directly the going conception of natural resource conservation and the administration of the National Forest. "Conservation," he told us, should mean "use," "development," "the satisfaction of human needs." The practical stockmen and lumbermen of the West were the true conservationists; but theorists of the Pinchot school were driving them out of business and locking up the West for future generations. He wanted the National Forests back in the Interior Department, where they belonged with the rest of the public domain. When that had been done, and not before, the due and needed development of the West would be resumed.

In most of his pronouncements, Secretary Fall cited Alaska as the outstanding example of great natural riches and opportunities, locked up by impractical conservation theorists. His speeches carried echoes of the Pinchot-Ballinger controversy of ten

years before. It became apparent that the vast National Forests of Southern Alaska were the first objective of his attack.

The Forest Service itself had done a good bit of worrying over Alaska. The territory was clamoring for people and industries. The momentum of gold mining and other mineral extractions was running down. The fishing industry had apparently reached its peak. The opportunities for agriculture were pitifully small. Many eyes turned longingly to the great stands of timber in the accessible coastal forests. Their 60 billion feet of Sitka spruce and West Coast hemlock, with water power in many streams cascading through them into the sea, should some day give Alaska a wood pulp industry like that of Sweden and Norway. But Alaskans wanted their industries and jobs right now.

One of my first undertakings as Chief of the Forest Service was a first-hand study of how we might bring wood pulp mills to Alaska. I took to the woods with our able District Forester, Frank Heintzleman, and top experts from the Forest Products Laboratory. The Tongass National Forest, with a timbered coastline of some ten thousand miles around the islands and inlets of the Alaskan Panhandle, was supplying half a dozen sawmills with logs for the lumber needs of the Territory, the boxing of its salmon pack and an occasional export cargo of high-grade spruce. It was furnishing the piling for hundreds of docks and fish traps. But the establishment of a pulp industry with an investment of five millions upward was an entirely different order.

We mapped and cruised the most promising areas of pulp timber. We drafted pay-as-you-go contracts for a 50 years' supply. We drew up prospectuses, advertised in the paper trade journals, and interviewed pulp and newsprint manufacturers on the West Coast. The conviction was painfully forced upon me that we were twenty years ahead of the economic pendulum. Like most Alaskans and

BY SPECIAL arrangement with Doubleday & Company, *American Forests* presents this preview chapter of *Forests and Men*, a book scheduled for publication May 17. The author is an AFA director and a widely respected pioneer in forestry circles.

Secretary Fall himself, we wanted the future to join us at tomorrow's breakfast table. This effort was renewed by the Forest Service after World War II. The first large sale of Alaskan pulp timber appeared to be assured in 1948.

In the Spring of 1922, the cold war became hot. With belligerent confidence, Secretary Fall declared to the press that he proposed to take over the National Forests and the Forest Service without further shilly-shally and that his first official act would be to fire the impractical theorist who was mismanaging the whole show. This pronouncement brought a tart rejoinder from red-headed Victor Murdock, Congressman from Kansas and a potent leader of the conservation bloc. In a press release, Mr. Murdock advised the Secretary of the Interior to ponder well the

Theodore Roosevelt, his program at stake





U. S. Forest Service Photo

#### Administration of Southern Alaska's Tongass National Forest was bitterly attacked

familiar recipe for hunter's stew which begins: "*First catch your rabbit.*"

The declaration of personal war put me in a quandary. I was not afraid of the outcome. The conservation policy and the Forest Service had many friends in Congress and throughout the country. And I would match the political generalship of Henry Wallace and Gifford Pinchot against the field. But the fighting traditions of G. P. were stirring within me. I did not want to take any more of it lying down. All of us in the Forest Service had been restrained by the fresh example of the Pinchot-Ballinger controversy, which came very near forcing Secretary James Wilson into a cabinet fight which he did not want. I would have cut off a hand rather than drag my staunch friend, Henry Wallace, into a feud that might take him out of the government. I told him I would resign and then take on without gloves the old Texas cowman who was running Interior.

Henry Wallace heard me through. The friendly wrinkles around his eyes were smiling with inward chuckles when he said: "My boy, don't ever get yourself into a contest with a skunk." In a few moments he added: "This is my fight as much as yours. We'll take it on; but let's pick our

own ground. Get the sun in the other fellow's eyes." When I left the Secretary's office that afternoon, he put a hand on my shoulder. "It may take something sharp to settle this thing," he said. "If that time comes and you feel you must quit, you and I will step out of the government together."

We both feared that the charming, friendly man in the White House, who stood so loyally by his cronies, might be committed to Fall's scheming before there was a chance to fight it in the open. Secretary Wallace got the assurance of the President that he would make no decision in the matter without a full Cabinet discussion; but the secretary watched all the currents of White House gossip and influence like a hound dog at a coon tree. Meantime the conservation press took up the Fall challenge, and the most powerful farm organizations in the country made themselves heard with remarkable unanimity. Secretary Wallace was picking his own ground, and the winds soon blowing around the White House would have given pause to a politician much less astute than Warren G. Harding.

Plans were shortly announced for the President's visit to Alaska. Secretary Wallace saw to it that I was included in the official entourage. "This," the secretary told me, "will likely be the showdown on Fall's grab

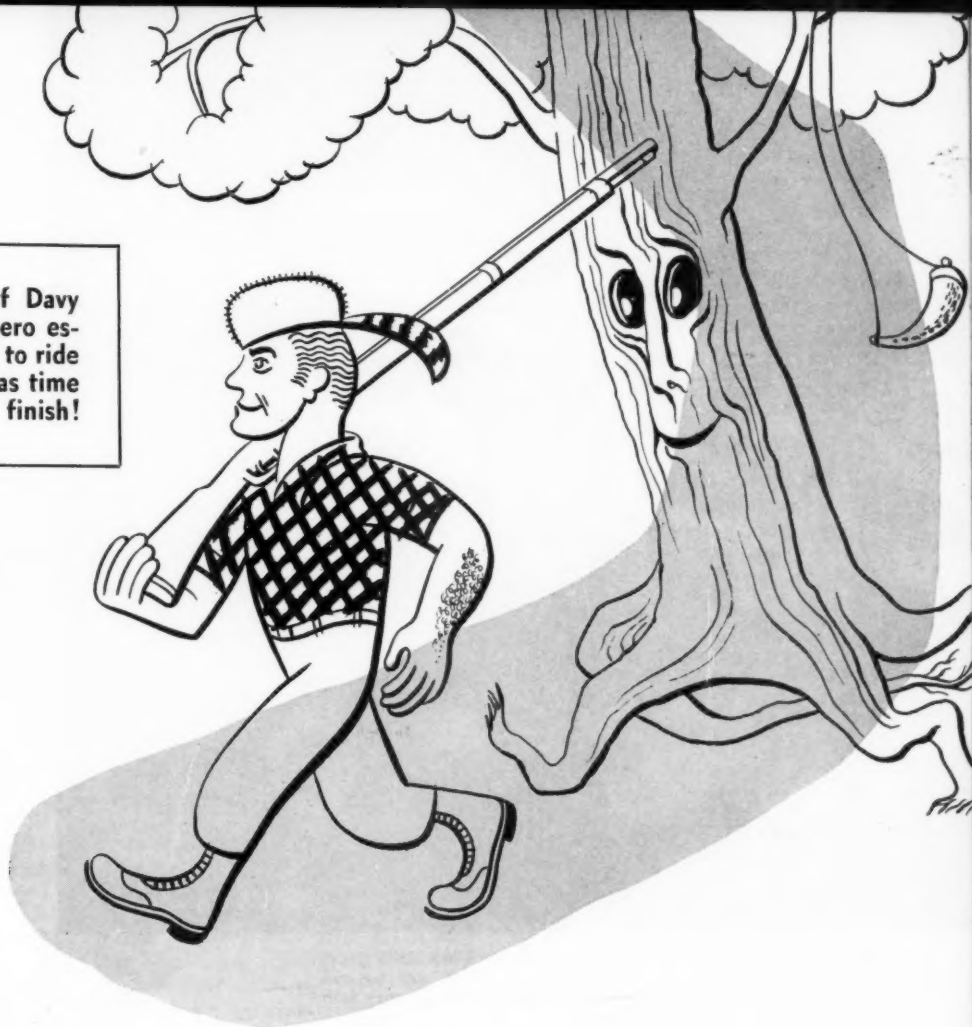
for Alaska. Bring plenty of powder and keep it dry." But just as we were briefing facts and arguments in the Forest Service, like a clap of thunder Albert Fall and all his schemes blew up. It was some time before we got the full story of the Teapot Dome oil scandal; but Fall dropped out of the Cabinet overnight; and his name became anathema to the administration. It was a subdued and saddened President with whom we journeyed to Sitka on the transport Henderson. Our conferences on the federal forest policy in Alaska were pushovers. Secretary Wallace whispered, at one of them, "there is not an ounce of fight in this whole ship."

On a blue, sunshiny afternoon the Henderson steamed slowly back down Puget Sound and past the Pacific Fleet in its brightest array. The crew on every battleship and cruiser "manned the rail" in their smartest uniforms as the President's ship moved majestically down the line; and each vessel in turn fired the Presidential salute of twenty-one guns. Then came the colorful ceremony of "piping aboard" all the commanding officers of the fleet, in order of seniority, with each receiving his due and sacred number of ruffles and flourishes as he came up the Henderson's ladder. On the next day, in the

(Turn to page 45)

In this fifth chapter of Davy Crockett folklore, our hero escapes Indians and learns to ride a traveling tree—even has time for romance. A punch finish!

By JAMES STEVENS



## DAVY AND THE TRAVELING TREE

SOON after supper Uncle Ben Cotter went to telling the new forest ranger about Davy Crockett's adventuring down the Columbia River, following his slide from the Seven Devils into the Snake and his swim down Hell's Canyon with a golden bear.

"On the Columbia Crockett found the fun had only started," Uncle Ben said. "His main trouble was account of a traveling tree that took a mon-straceous liking to him at first sight and dogged him same as old Poke on the hot smell of a badger. It was a lonesome tree. The traveling tree species was almost died out. Scarcely nothing but standing timber left. And now I'm going to tell you something that's hard to believe. Afore I start, I'll ask a fair question. You'll give me the benefit of the doubt, won't you?"

The new young ranger said some-

thing that sounded like "Hmm." Uncle Ben took a pick at his teeth, heaved a sigh, and looked away with his honest blue eyes musing-like at the sundown ridge. It was a red rim up yonder but already twilight down here. A sultry kind of evening, we were lolling around in the bunkshack yard. The loggers and mill hands of Uncle Ben's little outfit were all there, smoking and chawing and gaping. The new forest ranger was a new specimen in their midst.

This summer of 1904 Teddy Roosevelt was busy running against Judge Alton Brooks Parker for President but he was hard at work, all the same, fixing up the new government forest reserves. This here young ranger, Ronald Burpee Twiss, would be packing a pile of authority up here in the Mt. Hitt district. And he was a curiosity to all—the first Yale man anybody in camp had ever seen.

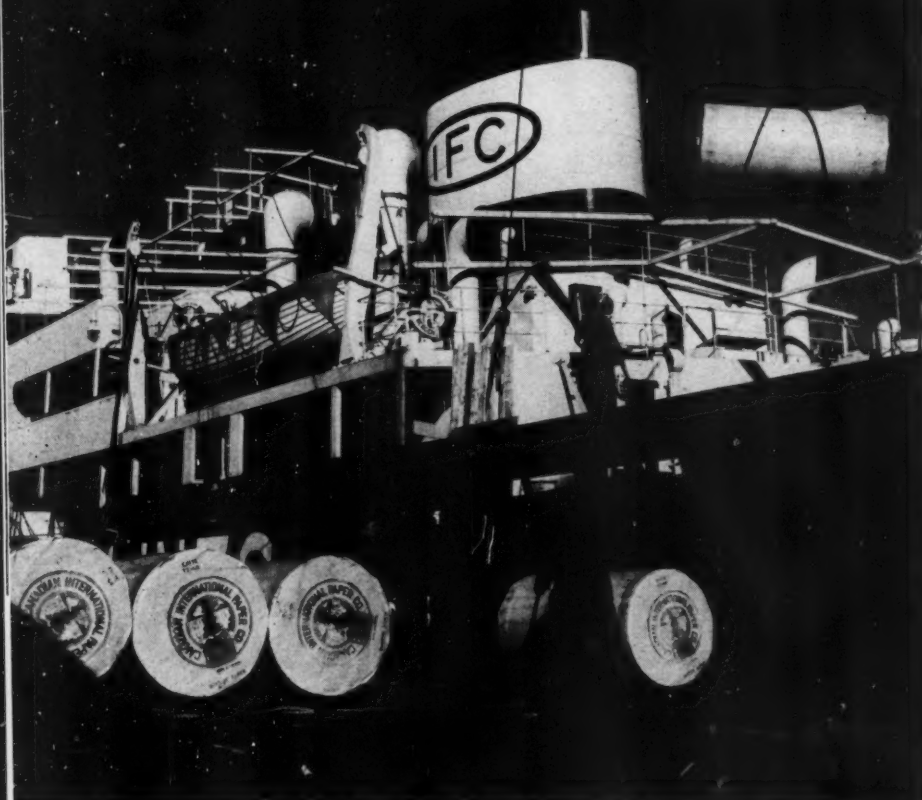
To me Ranger Twiss was a wonder. I was twelve. For four years I'd been reading regularly in the *Tip-Top Weekly* about the two greatest Yale men that had ever lived, or, as I figured, that ever could live. One was Frank Merriwell, the Yale baseball pitcher who could throw a double curve. The other was his younger brother, Dick Merriwell, who could pitch a jump ball, and whose catcher was Brad Buckhart. Brad was up to Yale from Texas. He could shoot peas out of a pod and never harm the pod. I surely did want to ask R. B. Twiss who Frank Merriwell was in real life back at Yale.

Every man there had questions in his mind about the Yale ranger. The loggers who had their own teams hired out to Uncle Ben also had livestock on the summer ranges of the government forest. Others held

(Turn to page 39)

# U. S. P

Our northern neighbor's carefully-planned woodland management program is paying off in profit and is assuring us a perpetual flow of newsprint



Huge rolls of newsprint for some of the 1800 daily journals and thousands of weeklies in the U. S. are hoisted aboard cargo vessel by crane at a New Brunswick paper mill

Coniferous reproduction like this in Eastern Canada is typical of improved management methods. One company has planted more than 100 million seedlings on cutover lands





# Presses Can Rely on Canada

By ROBSON BLACK

WHEN an American commuter rustles through the pages of his favorite paper, four chances in five he rustles Canadian newsprint. Your American is a restless and voracious reader and demands the last of the latest words on the passing parade. From 1800 daily journals and thousands of weeklies he gleans the play-by-play accounts of our jumbled world and the synthetic wonders of Rose Bowls and comic strips.

The impact of newspapers on American life is a force of infinite subtlety. News and views, limitless in volume and variety, crowd the dramas of two hemispheres onto a portable stage that you tuck beneath your arm. Of course, we take it all as quite commonplace, forgetting that a three-day suspension of newspaper circulations could brew such a witches' brew of rumor as to send us clamoring again for the last edition.

Since Uncle Sam leans so heavily on a paper supply from Canada, what's wrong with asking what Can-

ada leans on? Most people know that paper comes from wood, that wood comes from forests, and they may even know that forests need a management plan to hold them to the production line. What's going on in Canada right now to insure continuous harvests of pulpwood for continuous newspaper circulations in the U.S.A.?

In terms of trees, it takes about 80 million of them a year to furnish the paper that Canada sends to the American publisher. Even a 32-page daily, with 200,000 circulation, calls for a daily diet of about 750 tree trunks. The New York Times' Sunday edition gobbles up 800 cords 52 times a year, and to maintain that supply in perpetuity will require 416,000 acres of forest in the Province of Ontario, harvested under skilled supervision on a rotation of 80 years. If only one newspaper takes up so much forest geography it may look, offhand, as if the thousands of Amer-

ican journals drawing newsprint from Canada woefully tax that country's capacity and endurance. Possibly this has given rise to the fantasy that the pulp and paper people in Canada attack their forest domains with fang and claw, the virgin glories dissolving into a quivering shambles. The farther one gets away from the Canadian scene, the more plausible becomes the tale of pillage.

In point of fact, the making of pulp and paper in Canada consumes only one-fifth of the country's annual harvest of wood. Much more goes into domestic cooking and heating than into sheets of paper, and tragically more is sacrificed to fire, insects and disease. The fifth of the forest that the paper mills utilize creates more new wealth for the Canadian people than all other forest manufactures combined. It amounts to \$800 million in direct income, and this sum probably generates a secondary distribution of equal magnitude.

Measured by area, the wood-pulp (Turn to page 36)

Canada's Parliament building forms impressive backdrop for scene of logs being floated to mill on Ottawa river

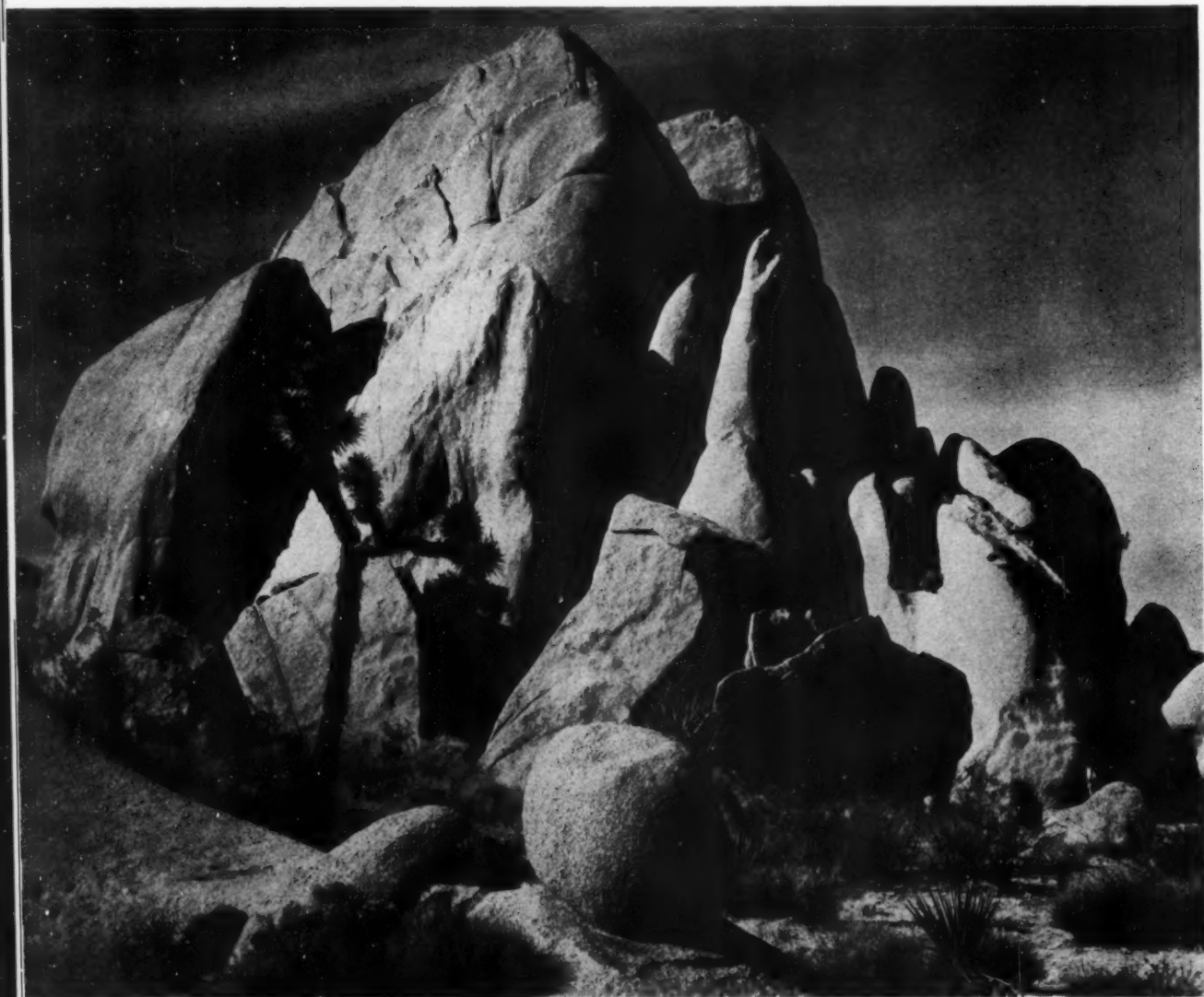


# *Interpreting*

## THE PRIMEVAL SCENE

Perhaps in no other way can man gain a keener insight into his relationship to nature than through images of the primal forces and beauty of the earth. These simple, yet awesomely powerful, scenes reaffirm his belief in the inevitable importance of beauty and of the human spirit. They give him pause to contemplate his surroundings and to identify himself with them. These pictures are from PORTFOLIO TWO, a camera study of U. S. National Parks and Monuments by Ansel Adams, well-known photographer

**A study of rocks in the Joshua Tree National Monument in California**





Noon in the wonder-studded Glacier National Park of Montana

The panoramic beauty of Olympic National Park, Washington, as seen from atop Hurricane ridge



Moth and stump scene in the interglacial forest of Glacier Bay National Monument, Alaska





The hawthorn, resplendent with blooms

These are a few of the decorative and useful trees now in favor for landscaping today's smaller homes

Hardy hibiscus is a great favorite



Pin oaks offer welcome summer shade

Photo by the Author







Arnold Arboretum Photo  
Franklinia blooms in autumn



Paper mulberry enhances any grounds



Leaf buds of a red maple



Arnold Arboretum Photo  
Dovetrees like moisture

## Small Trees for Home Grounds

By MARGARET I. JARDINE

OUR country has grown from a mere four million population in 1787 when the constitution was adopted to more than 150 million today. Consequently, available space is continually being divided and sub-divided to realize the greatest possible utility. Smaller homes are a natural outgrowth of this maximum space use. The smaller house of today is very dependent upon scale and proportion, and should be carefully planned not only to meet the requirements of the family, but also to fit harmoniously into the surrounding community. The trend in landscaping is to select trees and plants that enhance that harmony.

Every tree and plant should serve its purpose, and only the choicest specimens should be used. The average home owner knows more about horticulture now than he did 50 years ago and will not accept "run-of-the-row" nursery stock. The most important plants in the landscape are trees. They are more or less permanent, and they serve many purposes.

Trees add to the value of real estate, and in some communities are an important factor when computing worth of property. People are just beginning to realize the importance

of trees as "air conditioners." They purify the atmosphere by absorbing the carbon-dioxide given off by man as poison, and release oxygen which man must have in order to live. For this alone they are priceless.

On the south or southeast side of a house, perhaps 20 to 25 feet out, a high-headed tree should be planted, which will cast shade upon the house in the middle of the day. It is an unfortunate family that must tolerate the merciless rays of the sun on a hot summer day. As the area on a small place is limited, trees should be chosen that will give the most in return. Some are valued for their beautiful flowers, some for their handsome fruits, and still others for their autumnal hues. Some trees, but not too many, contribute all three.

The shape and general habit of growth is important, too, for it will either add or detract from the general scheme. The trees selected should "fit" the grounds they are to occupy; that is, they should be "small" or "medium" in size, first for looks, second for easy maintenance, and third,

because they will be easier to remove, if and when necessary.

All landscape planting should be governed by the general soil conditions of the locality. Trees selected should thrive naturally in that particular soil. It is folly to plant a lime-loving tree in an acid soil, and vice versa. However, many trees do well in a more or less neutral soil. When trees are set out, they should be carefully examined and any branches or roots that have been broken or bruised should be cut off clean to prevent infection and decay; the roots should be spread out in their natural position—never cramped into a small space.

The area or tree pit should be dug out and refilled with good loam, enriched with well-rotted (never fresh) manure, to a depth of from 18 inches to two feet. Tree pits should be six feet in diameter, but may be grassed in after a year or two if desired. It is a waste of money and labor to buy good stock, and then fail to provide the best possible conditions under which it lives.

Deciduous trees may be planted as soon as the ground can be worked in the spring, and until the leaves are

(Turn to page 28)

# Camp Stoves

By WILLIAM N. HARWOOD

**If a camper with even a semipermanent site should wish to make an inexpensive stove to warm his chill bones or cook a warm meal, here's a bit of advice**

**T**HE ordinary camper is not concerned with camp stoves to any great extent. His cooking and heating problems are adequately solved by the campfire. But the semipermanent camper and the cold weather camper can usually put stoves to good use.

There is no need to go to great expense in equipping your camp with stoves for cooking and heating purposes. Serviceable heaters can be made from old wash boilers, wash tubs or ten-gallon oil cans. You can make a good cookstove, Indian fashion, from sticks and clay.

The clay stove in Figures 1, 2 and 3 is patterned after those used by the Osage Indians. The big point in its favor is the fact that it can be quickly constructed wherever you have access to clay. This eliminates the problem of adding more weight to your camp outfit. The clay stove never has to be carried to your campsite.

The construction is begun by cutting some slender poles and tying or wiring them in a square pile as shown in the drawing. These should be of rather green wood to permit a slow smouldering fire which will bake the clay.

Next cut a few more poles and tie them in an upright position at the back of the first pile. They will form the chimney. Then cut some short blocks to match your cooking utensils and place them on top of the large pile of poles. They may be placed in any position you desire, but should be just the right size to fit the bottoms of your cooking utensils. Cover the framework with a layer of leaves or bark to keep the clay from

penetrating between the poles.

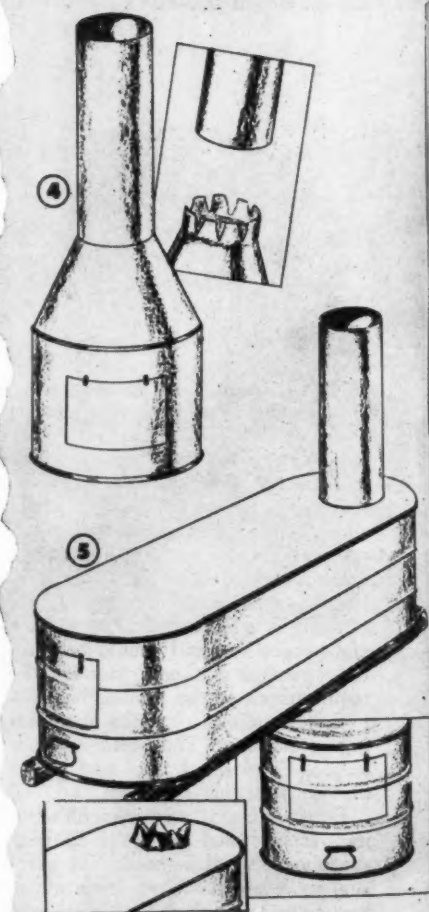
The stove is now ready for the claying process. Mix the clay with a little grass to serve as binder and knead until the mixture is soft and pliable. Caution should be taken to see that no sand or dirt becomes mixed with the clay as it will weaken the structure when dry.

Apply the clay about six inches thick, working it smooth until there are no cracks. When all the framework has been covered in this manner, set the wood afire, allowing it to burn slowly for several hours. When the wood has all burned away you will have a completed clay stove, ready for use.

A discarded wash boiler can be used to make an air tight heater. Fig. 5 illustrates this most efficient of stoves. Cut two slits in the shape of an "X" in the bottom of the boiler. Push the four points of the "X" upward and fit a section of smokepipe over them. Then cut a rectangular hole in one end of the boiler. Use the cut out piece to form a door by rigging it with lengths of wire. The top of the boiler serves as the bottom of the stove. When using, support the stove on rocks or logs.

This type of stove can be used in a tent with a minimum of fire danger. It is light enough to be carried on a trip and can be packed solidly with camp equipment, offsetting its bulk.

A wash tub can be converted to a heater in much the same manner, by cutting a door and affixing a stove pipe. This type of heater, however, is serviceable only out-of-doors or in a tent with a dirt floor, since the stove



has no bottom. It is somewhat heavy to carry around and, unlike the wash boiler stove, has no compensation for its bulk, not being designed to pack gear in as is the other.

The tops of these two stoves can be used to some extent for cooking,

(Turn to page 43)

# Keswick Erases Erosion

Using rock check dams and planting natural cover, crews are reducing ravages of nature on this California watershed

A SINGLE black cloud drifted over the red, barren hills and poured its moisture in a torrential storm over the countryside. In a matter of minutes gullies were running full of swirling, muddy water. Boulders rolled down the channels, and great chunks of earth broke from the nearly precipitous sides of the gullies. Down below, in the reservoir, a widening patch of muddy water formed at the mouth of the stream.

The scene was the Keswick Reservoir watershed on the Sacramento River, California, near Redding, and the occasion was erosion in action at its worst. It also is the scene of a Bureau of Reclamation project, in cooperation with the United States Forest Service, aimed at control of this type of erosion to prolong by many years the useful life of Keswick Reservoir, a unit of the Central Valley Project.

Two factors are responsible for the urgent erosion control problems present especially on the western hills above Keswick. The first of these is an annual rainfall of up to 60 inches, concentrated in a few months of torrential downpours. The second is the fact that most natural vegetation of the area was killed many years ago

By WILLIAM M. CARAH

by fumes from now defunct copper smelters, and now is just beginning to make a comeback.

To help speed this slow process of nature is the prime objective of the erosion control crews. But it involves much more than the mere planting of native trees and shrubs on the hillsides. First phase in the program is halting of destruction and waste of the soil. This is being accomplished primarily through construction of check dams of rock, earth, brush, logs and any other material at hand, to slow up the sluice-like flow of water through the already deeply eroded gullies and ravines of the watershed.

Keswick Reservoir extends along the Sacramento River Canyon for nine miles not far from Redding and along every foot of this area, particularly on the west side of the river, deep gullies scar the hillsides.

During a recent rainstorm of less than an hour's duration, just one of these rock check dams accumulated 55 cubic yards of earth and rocks. "Multiply that by thousands of ravines and gullies and one has an indication of the magnitude of our

problem," Construction Engineer Edward Helgren explained.

But the crews have multiplied that one check dam by thousands since the project was started in December of 1949. To be exact, they have constructed 13,365 check dams of various types and sizes. Construction of the check dam is just the beginning of the job. Behind the dam, the erosion control crews plant willow cuttings to provide a living barrier against the fast flowing water. "We can't expect to stop the flow of the water," Helgren said, "but we can slow it down to decrease its erosion force, and long enough for the water to drop part of the soil it is now carrying toward Keswick Reservoir."

Sites for the dam are carefully selected to take advantage of natural basins in which loose soil can be de-

Some of the 13,365 check dams that retard water flow and decrease its eroding force



Gordon R. Dawson, U. S. Bureau of Reclamation, with highly efficient tree planting tool he perfected

posited, and where the flow can be retarded more easily.

The second phase of the program is planting broad leaf cover of native origin on denuded land adjacent to the gullies. This cover has the two-fold effect of providing a root system to bind the soil, and leaves to break the force of the rain before it strikes the ground, loosening particles of soil.

"There's no use trying to improve on nature in providing cover for the hillsides," Helgren stated, "so we are depending on native vegetation, such as valley, black, dwarf live oak, and

(Turn to page 38)



# All the Angles . . .



Even with beginner's luck, the Mrs. finds there's more to the sport than just filling a creel

**I** LIKE to fish. Who doesn't? Everyone I know likes to fish except my wife.

"My idea of wasting time," she would say, "is to go out in a boat, sit there all day in the hot sun with bugs crawling down my neck and wait for a lot of stupid fish to bite!"

That isn't the way I feel about fishing. Who goes fishing to catch fish? I just like to row out to a quiet spot in a tranquil lake and toss the anchor overboard. Then I screw a comfortable chair with no legs and plenty of padding, on the boat seat, open up a can of beer, bait the hook and wait for the fish to start biting.

Is there anything wrong with that? No sir! If the fish don't bite, I dream beautiful dreams; if they do bite, I keep enough for dinner.

One day last summer, while I was under the porch of our Wisconsin summer cottage looking for my can of worms, I heard my wife's voice.

"I'm going with you!"

"That's wonderful," I exclaimed, scrambling out from underneath the porch. "I'll be glad to have you. There's nothing I'd like better than having you along so I could bait your hook, listen to you gab, hear you complain, and help you scare all the fish into some other lake."

"I'm going with you and that's that! I want to find out what you think is so wonderful about fishing."

"I can tell you right now," I replied. "One thing that's so wonderful, is no women. Besides, you don't have a pole."

"I'll get one from the Ludke's in the next cottage."

"You don't know how to put worms on the hook."

"You can't put the worms on the hook, can you?"

"You haven't got a license."

"I'm just going this once. Besides I was talking to one of the men and he said there hasn't been a game warden near Miller's Lake in three years."

"What are you doing? Stand around watching for game wardens? Don't you kid yourself!"

"One hour won't hurt after all the licenses you've bought and all the fish you haven't caught. What's the matter—don't you want me to come?"

"Of course," I said. "What would give you the peculiar idea that I don't want somebody yapping at the other end of the boat, hooking her fingers instead of the worm, splashing in the water . . . ?"

"I'm going and that's that!"

I knew that that was that.

A few minutes later I had everything gathered and we trudged in silence to the beach. I stepped in the boat first and adjusted my comfortable chair. My wife immediately sat in it.

I tossed the anchor in the boat and pushed the boat into the water. We—I—rowed out to a quiet spot I knew, where the fish were usually biting and let the anchor down easily.

"I don't see any fish here!" my wife said in a loud voice. "There isn't a fish down there!"

"Ssssssssh! You don't have to see them! You don't shoot 'em, you fish 'em! You don't see them and they aren't supposed to see you!"

I slid a wriggling nightcrawler on my hook and let it down. "Give me your pole," I said.

"How can you do a thing like that to a poor worm? That's terrible!"

"Ssssssssh! They can't feel it! Quiet! They have a very simple nervous system. Now hush!"

"Well, why do they squirm?" my wife exclaimed in a triumphant tone.

"Ssssssssssssh! Reflex. Now, please, please be quiet!"

We sat there quietly. The only sound was the gentle lapping of waves against the side of the boat. My posterior began to ache. It wasn't used to roughing it without my padded chair.

"This is monotonous!" exclaimed my wife. "When do the fish start biting? I told you there were no fish here. Let's go somewhere else!"

"SSSSSSSSSH!" I sounded as though I had been punctured. "Will you please shut up! They'll bite. Give 'em time!"

We sat there. My posterior became quite numb.

Then, all heck broke loose!

"I got one! I got one!" my wife screamed. "Grab him! Do something! Hurry!"

She stood up and pulled the pole out of the water. There, flipping at the end of the line, was a good sized perch.

"Do something!" my wife yelled and started to walk out of the boat.

I grabbed her arm. "Sit down! Give me the pole!" Meanwhile, she had put one foot out of the boat into the water.

I pushed her back into the chair and landed the perch.

"Don't get so excited," I said as I put the perch on the stringer. "Give me your pole and I'll bait the hook."

I handed her my pole.

I had the worm about half-way down the hook when . . .

# ...ALMOST

By ROBERT INGALLS

"I got another! It's a big one! I got another! It's on your line! Do something! Grab him!"

Darned if she wasn't going to leap in after that fish, too.

"Sit down," I roared. "You'll scare the rest of them away! Here, let me take that pole."

I landed him. A nice bluegill, fat and sassy, ready for the pan.

I finished baiting my wife's hook and started on my own.

"Help! I have another!"

"Sit down!" I yelled.

"I can't—he's pulling me in the water!" But she sat down.

"Take it easy," I said. "Just point the pole at the sky and he'll land in your lap."

That's what she did. She pointed the pole at the sky and the fish landed in her face. Gave her a couple of slaps with its tail for good measure.

"You told me that on purpose," my wife said as she wiped fish slime out of her eye. "You're just jealous 'cause I'm catching all the fish."

"I am not jealous because you are catching all the fish," I replied with dignity. "I cannot be expected to catch fish until I have a pole in my hand. So far all I've done is pull your fish out and bait your hook."

"All you can do is make excuses while I catch the fish. Just bait this hook and try not to scare my fish away with all your jabbering!"

Nine or ten fish later, I was getting disgusted. The fish were biting like flies just before rain. My wife was catching them all. I was baiting hooks and landing her fish for her. Now I know how a retriever feels.

She—she was gloating and I knew that I would never hear the end of this.

"What's that man in the motor boat doing?" my wife asked.

I looked over to where she was pointing. A man in a motor boat putt-putt-putted over to another fishing boat and talked to the fishermen. They handed something to him. He looked at it and handed it back.

Then he putt-putt-putted over to another boat.

"My dear," I said. "When was the last time you were sent up?"

"Sent up?" she asked. "What do you mean? Jail? What are you talking about?"

"That gentleman, my dear, is the

game warden. He is the man who hasn't been around for three years according to your source of information.

"Furthermore," (I was really rubbing it in) "he is checking fishing licenses like the one that I have here in my wallet but which you do not possess."

The game warden was putt-putt-putting our way now.

"Quick," my wife hissed. "Take my pole!" And she thrust it in my hands.

"May I see your fishing licenses, please?" asked the game warden who had pulled alongside.

I reached for my wallet in my hip pocket. "Of course, officer. You'll find everything is in order."

The game warden glanced at my license and handed it back. "May I see yours please, miss?"

"Who me?" said my wife acting as though there were thirty or forty other women in the boat.

"Yes ma'am."

"You mean you want my fishing license?"

"Yes ma'am."

"Do I have to have a license just for sitting in the boat?"

"No ma'am. Just if you are fishing."

"Oh, but I wasn't fishing. Was I dear?"

"Uh."

"I was just sitting here watching my husband fish."

"I'm sorry, ma'am," the warden replied. "But I was watching from shore through binoculars. And you were catching quite a few fish. In fact, I believe you caught all of them. Your husband could take lessons."

"Now wait a minute, officer..." I started to say something.

"Ma'am, you should never have been fishing without a license. I'll have to take your name and address. You'll have to come to Wautoma and see the judge tomorrow."

A tear trickled out of my wife's eye. "But this is the first time I was ever fishing," she said.

"That can't be helped, ma'am. I have to turn in your name."

"But I never went fishing before. This is the first time. I hate fishing. I never fished before and I'll never fish again!"

Her eyes were streaming by this time.

The warden continued. "It isn't the idea of whether or not you fish often. Some people who fish very often catch very few fish. We have rules and regulations to protect the interests of the state and those who like to fish. The small cost of a

(Turn to page 44)



# REPORT ON AMERICAN BIG TREES

In September 1940, The American Forestry Association launched a campaign to locate the largest living specimens of American trees. After ten years of diligent search by cooperating individuals, the following list of "champions" is being run serially until completed. Common and botanical names listed conform to "Standardized Plant Names" issued by the American Joint Committee on Horticultural Nomenclature. Identification and measurements are by nominators. The challenge is to locate trees larger than those listed, if they exist, and also giants of species not listed. Send all reports to The American Forestry Association, 919 Seventeenth Street, N. W., Washington 6, D. C.

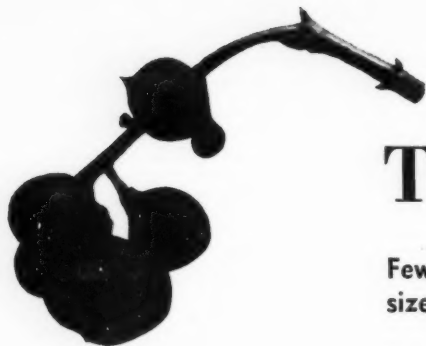
## Part II

Species	Circumference at 4½ feet	Spread	Height	Location of Tree and Nominator
<b>CRAPEMYRTLE</b> Common, <i>Lagerstroemia indica</i>	6'6" (at 2½') .....		30'	Statesburg, South Carolina. Mrs. Walter C. White, Statesburg.
<b>CYPRESS</b> Arizona, <i>Cupressus arizonica</i>	17'3" .....		91'	Coronado National Forest, near Tucson, Arizona. James L. Mielke, Albuquerque, New Mexico.
Modoc, <i>Cupressus bakeri</i>	10'2" .....		110'	Near Miller Lake, Oregon. Oliver V. Matthews, Salem.
Monterey, <i>Cupressus macrocarpa</i>	8'4" .....			Statesburg, South Carolina. C. H. Schaeffer, Columbia.
<b>FALSECYPRESS</b> Lawson, or Port Oxford Whitecedar, <i>Chamaecyparis lawsoniana</i>	27'2" .....		200'	Squaw Creek, Coos County, Oregon. Oliver V. Matthews, Salem.
Nootka, or Alaska Yellow Cedar, <i>Chamaecyparis nootkatensis</i>	17'5" .....		90'	Olympic National Park, Washington. Preston P. Macy, Port Angeles.
Whitecedar, or Atlantic Whitecedar, <i>Chamaecyparis thyoides</i>	10'5" .....	25'	60'	South of Milford, Delaware. W. S. Taber, Dover.
<b>DEVILS-WALKINGSTICK</b> <i>Aralia spinosa</i>	2'1" .....	12'	30'	Great Smoky Mountain National Park, Tennessee. S. Glidden Baldwin, Danville, Illinois.
<b>DOGWOOD</b> Flowering, <i>Cornus florida</i>	5'8" .....			Woodville, Mississippi. J. R. Hamilton, Woodville.
Pacific, or Western, <i>Cornus nuttalli</i>	6'11" .....	45'	100'	Milwaukie, Clackamas County, Oregon. Oliver V. Matthews, Salem.
Pagoda, <i>Cornus alternifolia</i>	1'3" .....	15'		Pennsylvania State College, State College, Pennsylvania. H. H. Arnold, State College.
Roughleaf, <i>Cornus asperifolia</i>	1'1" .....			Mt. Washington Cemetery Woods, Jackson County, Missouri. Kendall Laughlin, Chicago, Illinois.
<b>ELDER</b> American, <i>Sambucus canadensis</i>	9" .....	13'	13'	Dunes State Park, Indiana. Kendall Laughlin, Chicago, Illinois.
Blackbead, <i>Sambucus melanocarpa</i>	13' (base) .....		28'	Near Troutdale, Multnomah County, Oregon. Oliver V. Matthews, Salem.
Blueberry, <i>Sambucus cerulea</i>	8'5" .....			Near San Rafael, California. Philip C. Knapp, San Francisco.
Pacific Red, <i>Sambucus callicarpa</i>	2'5" .....			On Shoalwater Bay, Pacific County, Washington. Oliver V. Matthews, Salem, Oregon.
<b>ELM</b> American, <i>Ulmus americana</i>	24'7" .....	147'	160'	Near Trigonía, Blount County, Tennessee. Edgar Calhoun, Kingsport.
Rock, <i>Ulmus thomasi</i>	16'6" .....	108'	65'	LeClaire, Iowa. F. G. Meyer, LeClaire.
September, or Red, <i>Ulmus serotina</i>	7'9" .....	65'	105'	Burnham Mountain, Glenwood, Arkansas. Kendall Laughlin, Chicago, Illinois.
Slippery, <i>Ulmus fulva</i>	15'5" .....	65'	70'	Near Willoughby, Lake County, Ohio. C. M. Shipman, Willoughby.
Winged, <i>Ulmus alata</i>	14'6" .....		105'	Near Madison, Alabama. Thomas Z. Atkeson, Jr., Washington, D. C.
<b>EUONYMUS</b> Eastern Wahoo, or Eastern Burning-bush, <i>Euonymus atropurpureus</i>	1'2" .....	18'	22'	Turkey Run State Park, Indiana. Kendall Laughlin, Chicago, Illinois.
<b>FIG</b> Florida Strangler, <i>Ficus aurea</i>	16' .....	50'	60'	Matheson Hammock, Florida. Devereux Butcher, Washington, D. C.
<b>FIR</b> Balsam, <i>Abies balsamea</i>	9' .....	42'	75'	Pocomoke City, Maryland. William L. Dennis (Deceased).
Fraser, Balsam, <i>Abies fraseri</i>	6'7" .....			Great Smoky Mountain National Park, Tennessee. S. Glidden Baldwin, Danville, Illinois.
Cascades, or Pacific Silver, <i>Abies amabilis</i>	16'6" .....			Columbia National Forest, Washington. Oliver V. Matthews, Salem, Oregon.



Species	Circumference at 4½ feet	Spread	Height	Location of Tree and Nominator
Bigcone Douglas, <i>Pseudotsuga macrocarpa</i>	24'	---	116'	Los Padres National Forest, California. A. J. Weisgerber, Los Padres National Forest.
Common Douglas, <i>Pseudotsuga taxifolia</i>	53'4"	---	221'	Olympic National Park, Washington. Preston P. Macy, Port Angeles.
Grand, <i>Abies grandis</i>	20'7"	---	---	On Wolf Creek Highway, Clatsop County, Oregon. Oliver V. Matthews, Salem.
Noble, <i>Abies procera</i>	22'8"	35'	260'	Columbia National Forest, Washington. Thornton T. Munger, Portland, Oregon.
Red, or California Red, <i>Abies magnifica</i>	25'3"	---	168'	Lassen Volcanic National Park, California. J. V. Lloyd, Lassen Volcanic National Park.
Shasta Red, <i>Abies magnifica shastensis</i>	19'6"	---	174'	Lassen National Forest, California. T. J. Starker, Corvallis, Oregon.
Silver, <i>Abies alba</i>	5'3"	---	---	Wenatchee National Forest, Washington. T. J. Starker, Corvallis, Oregon.
White, <i>Abies concolor</i>	25'5"	---	189'	Yosemite National Park, California. John B. Wosky, Yosemite National Park.
<b>FRINGETREE</b>				
White, or Flowering Ash, <i>Chionanthus virginicus</i>	3'5"	40'	35'	National Zoological Park, Washington. D. C. Ernest H. Van Fossan, Washington, D. C.
<b>HACKBERRY</b>				
Common, <i>Celtis occidentalis</i>	17'1"	95'	88'	Tappahannock, Virginia. Philip R. Hough, Washington's Birthplace, P.O.
Douglas, or Western, <i>Celtis douglasi</i>	4'4"	---	---	Portland, Oregon. Oliver V. Matthews, Salem.
Sugar, <i>Celtis laevigata</i>	15'3"	90'	60'	Florence, Alabama. Robert A. Campbell, Norris, Tennessee.
<b>HAWTHORN</b>				
Cockspur, <i>Crataegus crusgalli</i>	2'	16'	19'	Chechupinqua Woods, Cook County, Illinois. Kendall Laughlin, Chicago.
Dotted, <i>Crataegus punctata</i>	4'10"	35'	21'	Billy Caldwell's Reserve, Chicago, Illinois. Kendall Laughlin, Chicago.
Yellow Dotted, <i>Crataegus punctata aurea</i>	5'	43'	31'	Billy Caldwell's Reserve, Chicago, Illinois. Kendall Laughlin, Chicago.
Downy, <i>Crataegus mollis</i>	7'7"	49'	29'	Camp Ground Road Woods, Cook County, Illinois. Kendall Laughlin, Chicago.
Fleshy, <i>Crataegus succulenta</i>	1'	17'	25'	Chechupinqua Woods, Cook County, Illinois. Kendall Laughlin.
Ontario, or Scarlet, <i>Crataegus sertata</i>	2'4"	23'	23'	Glenview Memorial Woods, Cook County, Illinois. Kendall Laughlin, Chicago.
Pear, <i>Crataegus calpodendron</i>	2'	28'	18'	Morton Arboretum, Lisle, Illinois. Kendall Laughlin, Chicago.
Prairie, <i>Crataegus disperma</i>	2'5"	27'	26'	Schiller Woods, Cook County, Illinois. Kendall Laughlin, Chicago.
Washington, <i>Crataegus phaenopyrum</i>	2'9"	23'	25'	Near Burnt Mill, Montgomery County, Maryland. F. W. Besley, Baltimore.
<b>HEMLOCK</b>				
Canada, or Eastern, <i>Tsuga canadensis</i>	19'9"	69'	98'	Great Smoky Mountain National Park, Tennessee. S. Glidden Baldwin, Danville, Illinois.
Mountain, <i>Tsuga mertensiana</i>	20'10"	---	94'	Lassen Volcanic National Park, California. J. V. Lloyd, Lassen Volcanic National Park.
Pacific, or Western, <i>Tsuga heterophylla</i>	27'2"	---	125'	Olympic National Park, Washington. Preston Macy, Port Angeles.
<b>HICKORY</b>				
Arkansas Black, <i>Carya texana arkansana</i>	6'9"	43'	95'	Rose Inn, Crossett, Arkansas. Kendall Laughlin, Chicago, Illinois.
Bitternut, <i>Carya cordiformis</i>	12'6"	---	171'	West Feliciana Parish, Louisiana. Miss Lazella Schwarten, Jamaica Plain, Massachusetts.
Mockernut, <i>Carya tomentosa</i>	6'6"	60'	93'	Near Bryantown, Maryland. Karl E. Pfeiffer, Annapolis.
Pignut, <i>Carya glabra</i>	14'9"	---	---	Near Crosswicks, New Jersey. H. Gleason Mattoon, Philadelphia, Pennsylvania.
Red, <i>Carya ovalis</i>	13'4"	45'	145'	Norris Reservoir, Tennessee. Keith D. Lange, Norris.
Shagbark, <i>Carya ovata</i>	10'6"	60'	68'	Avon, Connecticut. Allen B. Cook, Hartford.
Shellbark, <i>Carya laciniosa</i>	12'9"	74'	128'	Big Oak Tree State Park, Missouri. Kendall Laughlin, Chicago, Illinois.
<b>HOLLY</b>				
American, <i>Ilex opaca</i>	11'1"	45'	72'	Olympia, Pamlico County, North Carolina. John L. Gray, Raleigh.
Mountain Winterberry, <i>Ilex montana</i>	1'2"	8'	18'	Great Smoky Mountain National Park, Tennessee. S. Glidden Baldwin, Danville, Illinois.
Possumhaw, <i>Ilex decidua</i>	1'1"	27'	20'	Big Oak Tree State Park, Missouri. Kendall Laughlin, Chicago, Illinois.
<b>HOPHORNBEAM</b>				
American, <i>Ostrya virginiana</i>	9'2"	50'	65'	Near Winthrop, Maine. J. R. Hansbrough, New Haven, Connecticut.
<b>HORNBEAM</b>				
American, or Blue Beech, <i>Carpinus caroliniana</i>	5'6"	60'	42'	Near Princess Anne, Maryland. F. W. Besley, Baltimore.

(To be continued in next issue)



# The California Buckeye

Few trees rival this beauty in elegance and size of blooms. It flowers in May and June

By M. WOODBRIDGE WILLIAMS

**N**O other tree in California can compare with the California buckeye (*Aesculus californica*) in the elegance and size of its blooms. Common along the roads of the coast range and Sierra foothills these splendid trees are resplendent in pink and white masses during May and June. They permeate the countryside with a pleasant fragrance and garnish the landscape with a soft, delicate coloring.

The seeds are about the size of a small peach, hard and chestnut colored. From their resemblance to the eye of a buck deer the tree derives its name. As children we would germinate the seeds in a glass of water to admire the fragile young foliage. In nature they develop along stream courses where they are carried by the winter floods, and deposited in drift, sometimes to sprout in a damp place.

The seeds, which are well developed by Fall, look good enough to eat, but they aren't—that is, not until they have been roasted, as the Indians once did, and then ground into a type of meal. Cattle have sometimes eaten them raw, and have died from effects of a powerful astringent contained in the seed.

The lush palmate foliage of the California buckeye suggests a green-

house, or tropical environment, rather than the dry foothills, and this impression is correct. For actually the buckeye is descended from a wetter climate than we now have, and its nearest relatives are in Asia, and not Ohio, the buckeye state.

It has survived in California on the dry foothill slopes and eastern sides of the coast ranges due to its short season of growth. It has condensed a full year's activity for a normal tree into the few wet California months.

In March and April the leaf buds swell, and by May the large palmate leaves have reached maturity. Flowering commences in the end of May, and through June, with the first bloom apparent at the apex of the flower clusters which are born in spike-like panicles six to ten inches long. In August and September the tree's leaves wither with the summer heat, and by Fall when eastern deciduous trees have turned to bright colors, the California buckeye's leaves are gone and only the fruit hangs pendent on the tips of the naked branches.

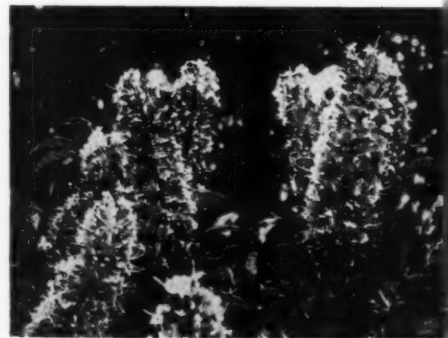
So delicately adjusted is this tree to conditions of heat and moisture, that even within one county its habits are regulated by a wet or dry environment.

For example in the coastal counties near San Francisco the buckeyes that live on the dry eastern slopes of the hills bloom earlier, and wither earlier than the trees on the western slopes that are watered the year round by coastal fogs.

Thus this western representative of the horse chestnuts has been able to survive in California, by "living" for four months of the year, and hibernating the remainder.

Yet even when bare, the twisted and gnarled forms of the buckeye present one of the most pleasant natural spectacles of the California hillsides.

Buckeye's blooms are white or pink



Finest specimens grow in moist locations



Winter exposure gnarls and twists trees



# What a LOG- LUGGER!

**"The TD-24—best  
logging tractor built,"**

**says F. W. Headrick, Eureka, California**

Enough board feet for a good five-room house—that's a single redwood log where Headrick Brothers operate, near Eureka, California.

It takes the International TD-24 to bring in logs like this—and because the TD-24 can turn with a load, keeping power on both tracks, can instantly shift without declutching into high or low range, it brings out more logs in a day's time.

Sure, it's packed with power—148 maximum drawbar horsepower. It does more work per hour—so much more—and asks so little in operation, maintenance, and repairs that you can make money logging timber areas that were never profitable before.

Want proof? Ask your friends in the timber country. See your International Industrial Distributor. Put the TD-24 on your toughest job—it's a pushover for the champ!

**INTERNATIONAL HARVESTER COMPANY  
CHICAGO 1, ILLINOIS**



**AVERAGING 100,000 board feet daily, the TD-24 snakes 'em out for Headrick Brothers, in redwood forest near Eureka, California.**



**INTERNATIONAL**

**POWER THAT PAYS**

## Wise Old Owl says:

HOOT, MON,  
IT MAKES GOOD  
CENTS TO TAKE  
CARE OF YOUR  
CHAIN SAW!



"Neglect is the worst abuse a chain saw can get. In ordinary times, the worst name you could call that would be *waste*; now it's a downright crime. Saws are already in short supply; parts hard to get. Figures show that approximately 70 percent of repairs to chain saws are caused by *damaged*—not worn out—parts. Most of this damage can be prevented. What can I as a chain saw owner do? It's as simple as one, two, three:

1. **KEEP IT CLEAN.** Every day I clean the sawdust, leaves and muck from my machine.
2. **KEEP IT OILED.** Regularly, and according to the book.
3. **KEEP IT SERVICED.** I watch my saw the way a mother watches her child's behavior. A bolt tightened in time may save many days in the repair shop.

"Works, too. My four-year-old Disston still cuts as much wood as it did when it was new."

### JOIN IN DISSTON'S GREAT NEW FIGHT WASTE PROGRAM



The times are serious. We don't know what lies ahead. But we do know there will be increasing shortages of strategic materials. At the same time there will be an increasing demand for chain saws and for forest products of all kinds. This means that, as new chain saws become hard to get, your old saw becomes more and more valuable. You will be helping your country and yourself by fighting waste *now*. How? It's really very simple. Follow these two easy steps . . .

**MAINTAIN YOUR CHAIN SAW.** Disston makes available—absolutely without cost—valuable preventive maintenance booklets and check-up charts. Follow these and you'll have a minimum of trouble. Send for your free copies today!

**SERVICE YOUR CHAIN SAW.** Disston Dealers are cooperating with the Fight Waste Program. They are located at strategic centers near you, and they are chain saw experts. You will save time and money by making a practice of bringing your chain saw in regularly for a check-up. These specialists can spot little troubles before they become big and expensive troubles . . . can help you get the most out of your chain saw.

## HENRY DISSTON & SONS, INC.

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In Canada, write: 2-20 FRASER AVENUE, TORONTO 3, ONT.

## Small Trees

(From page 19)

fully out; then again in the fall when the trees have shed their leaves and are becoming dormant. They may even be planted in the winter if care is taken to cut a large enough ball of earth around the roots.

The maple family has produced some of our finest deciduous ornamental trees. One member of this family of small to medium size is the Amur maple (*Acer ginnala*). About 20 feet high, it is one of the hardest and most attractive of all maples. It has a bushy habit of growth, with dense foliage, and produces an abundance of shade during the heat of the summer. Its foliage is trifoliate, or three-lobed, and in the autumn turns first to a beautiful salmon shade, and finally to rich tones of red. For autumn color it is unexcelled, and holds its foliage quite late. It is a native of Asia. It is useful as a specimen, or a windbreak, and is hardy under seashore conditions or lakefront exposure.

Another interesting maple of about 25 feet in height is known as paper-back maple (*Acer griseum*), and it is a native of Japan and central China. It is the most striking of the trifoliate maples because of its cinnamon brown bark, which peels off in loose flakes, disclosing the orange-colored bark beneath. It is hardy, and its gorgeous autumn coloring of golden-orange to red remains until mid-November. *Acer griseum* is not very well known, and it is regrettable, for here is a tree worthy of a choice location on the home grounds. While it is available, few nurseries carry it as yet.

There are few ornamental trees that possess all the qualities and charm of the flowering dogwood (*Cornus florida*). Although it attains a height of 20 to 30 feet, it is more likely to average 15. Of dense bushy habit, its branches are arranged in tiers, giving it a light and airy effect. It is hardy from Massachusetts to Florida, and west to Ontario. In northern Massachusetts, however, it may be grown along the edge of the woods, or in a position sheltered by other trees. It is very effective flanked against pines.

Its greatest charm is its flowers, which are pure white and are really not flowers at all but the white "bracts" which surround the small inconspicuous flower clusters. They

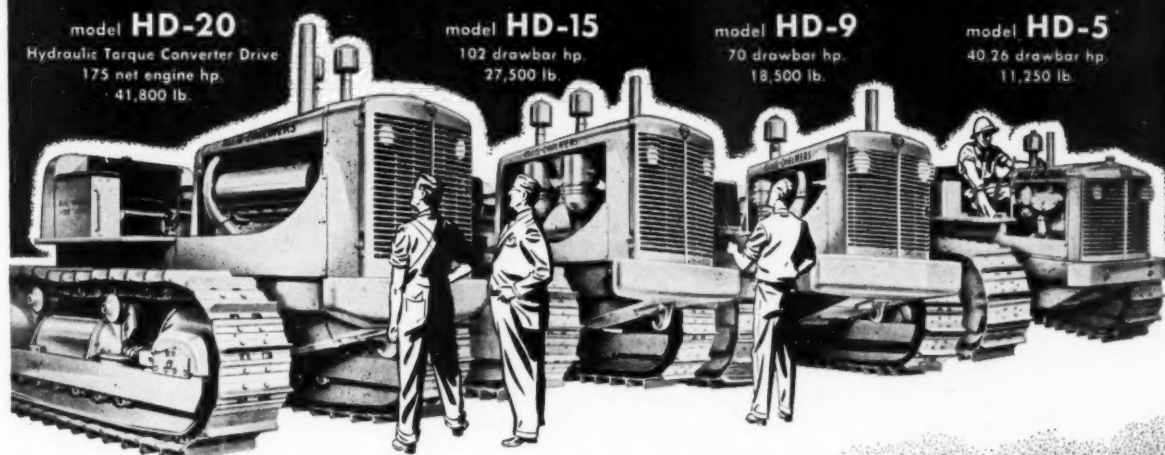
(Turn to page 30)



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## Small Home Trees

(From page 28)

are followed by brilliant red clusters of fruit in the autumn. In attracting the birds, the dogwood has no equal, for its fruit is the favorite of no less than 86 kinds of birds, who are one of man's greatest allies in destroying insects. Throughout the season the foliage is an attractive dark green, which turns in the autumn to a fiery red.

As a single specimen on the lawn, or planted along a boundary or edge of the woods, particularly if they are evergreen, the flowering dogwood has earned first place as a small ornamental tree. An attractive pink variety is *Cornus florida rubra*, similar to the common variety in other respects. An outstanding new variety, recently introduced, is "White Cloud." It produces large masses of white flowers, literally creating the effect of a white cloud.

A summer flowering tree of charm is the Japanese Stewartia (*Stewartia pseudo camellia*). In its native habitat it attains a height of 50 feet but would probably be much less in this country. Its smooth pale gray bark which separates in huge plates, adds to the interest of the tree. It is hardy as far north as Massachusetts, and is doing well at the Arnold Arboretum near Boston.

In August it produces pure white cup shape flowers which resemble those of a single camellia. The flowers are large and showy. In the autumn the leaves turn dark bronzy purple, quite distinct from those of any other tree, and finally become red or orange-scarlet, before they finally drop in November. The Stewartia thrives best in deep rich porous soil, and a warm sunny position.

Another summer flowering tree is the Japanese Tree Lilac (*Syringa japonica*). Attaining a height of about 30 feet it has an erect bushy habit, with large leathery leaves. It comes into bloom in Massachusetts in early July, and is the last of the lilac family to bloom. Its fragrant creamy white flowers are borne in terminal panicles, in great profusion. Although it is a member of the lilac family its flowers are not quite the same, being much more feathery in effect. It is one of our most striking flowering trees, and is excellent for planting along boundaries, in groups as a screen, or as a single specimen.

The willow family has contributed

a handsome ornamental tree in the laurel willow (*Salix pentandra*). A tree ranging from 20 to 50 feet in height, it is one of the handsomest of the willows with its brilliant dark polished leaves resembling those of the mountain laurel. It will grow in average soil, but does best in a moist location. If desired it may be clipped into a formal shape, or it may be planted as a screen or hedge. It also may be used as a specimen. In the autumn its deep green lustrous leaves offer a pleasing contrast to the reds and golds of its neighbors.

The sweetbay (*Magnolia glauca*) is another tree that deserves to be better known. In some localities it is evergreen. The flowers, globular in shape, are delightfully fragrant. When they first open they are a creamy white, which deepens with age. They bloom almost continuously from June to September. The flowers are followed by showy red cones.

Although Massachusetts is their northern limit, the writer has successfully established a group by building up a screen of shrubs as *Viburnums*, and high-bush blueberry, which protect them from the cold blasts from the north and east, and also planting them in a location where they would receive ample moisture.

The oaks are not slow growing as is generally supposed, and deserve greater recognition as ornamental specimens. There is nothing more beautiful in the spring than the unfolding of their pink and red leaves, or glorious than their autumn colors. The oaks retain their foliage well into November.

Although the oaks could not properly be classed as small trees, the pin oak could perhaps be considered an exception, as it is so well suited for planting as a specimen on the small home grounds. It rarely exceeds 85 to 90 feet in height, and forms a symmetrical pyramidal head when young, but becomes more irregular and oblong in shape as it grows older. Its leaves are a glossy green, with deeply divided lobes, and sharply toothed.

It is handsome at all stages of growth, and produces a dense shade. It prefers low moist places, where it will be assured of abundant moisture. In the autumn the foliage turns a rich red, creating a pleasing contrast against its attractive gray bark.

(Turn to page 32)

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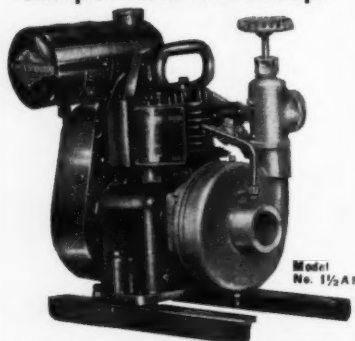
(Photo: U.S. Forest Service)

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## Small Trees

(From page 30)

The flowering crabapples, flowering cherries, and the hawthorns are among our finest plant material. There are many varieties, sizes and colors in each family. They all grow in ordinary soil, and the hawthorns in particular stand up well under city conditions.

One of our most interesting trees, and a tree of great individuality is the dovetree (*Davidia involucrata*). It was introduced into this country from China about 45 years ago. Although it is still considered rare here, it is obtainable. Of broadly pyramidal growth it attains a height of 60 feet in its wild state. The flower, which is really two large bracts, one shorter than the other, forms a sort of canopy over the inconspicuous, true flowers.

The bracts are very showy, pure white at first, and change to creamy white. Sometimes they are as much as six inches long, and three inches wide, and bloom in late May. The dovetree likes a rich soil, and enjoys abundant moisture and full sunlight. When in bloom, the dovetree presents a remarkable spectacle, with hundreds of loosely hanging white bracts which flutter with every movement of the air and resemble a huge flock of white doves.

The Franklina (*Franklinia alata-maha*) is one of the few trees that blooms in the autumn. It belongs to the tea family (*Theaceae*), which relates it to the Stewartia. It is 15 to 20 feet in height with smooth bark and upright yellow stamens which resemble the gardenia, and are produced from August to late September. Its large bright green leaves four to six inches long turn orange to crimson in the fall. Sometimes it has been noted with autumn color and flowers at the same time, which is most unusual.

Most of us are likely to think of trees in terms of usefulness, and their attractiveness in foliage, flowers, fruit or autumn color but what about winter? That is the season when we become conscious of form—when the architecture of the trees stands out in all its beauty.

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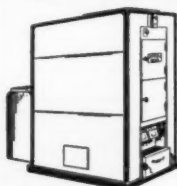
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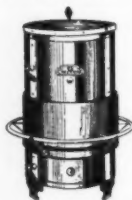
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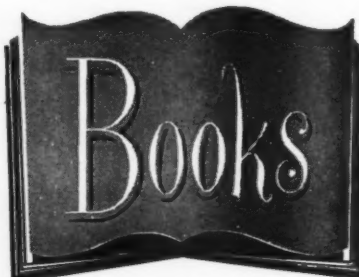
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**Steve Mather of the National Parks**, by Robert Shankland. Published by Alfred A. Knopf, Inc., New York, N. Y. 326 pages, illus. Price \$4.

A dramatically presented biography of Stephen T. Mather, the influential and wealthy Chicago industrial leader, who became known as the father of the National Park Service. This book not only reveals the untrammelled vision, steady purpose, and indefatigable labor resulting from one man's great love of nature, but is also the story of the parks themselves, and of the fight against corruption, commercialization and de-

structive private interests. When Stephen Mather complained to the Secretary of Interior that the National Parks were underfinanced and mismanaged, he was told, "If you don't like the way the parks are being run, come on down and run them yourself." He accepted the challenge, came to Washington for a year, but actually stayed 14.

Presenting both the public and private phases of Mather's spectacular career, this narrative is another monument to the man who is responsible for making the National Parks what they are today.

**Water—Or Your Life**, by Arthur H. Carhart. Published by J. B. Lippincott Company, Philadelphia, Pennsylvania. 312 pages. Price \$3.50.

In a book just off the press, Arthur Carhart presents a revealing picture of the problems of water conservation now facing the American people, giving light to the deplorable neglect of the fundamentals of water conservation and to some of the fantastic proposals now being advanced. Facts are given for the intelligent control of our water supply, our rivers and streams, our wildlife and scenic beauty.

In the Foreword, Jay N. Darling states "This book comes at a time when, all across this once well-watered continent, crippling water shortages have been appearing while ground waters continue to recede and demands increase. The author has brought together an amazing assemblage of factors from right under our noses and interpreted them in terms of their mass impact on our individual welfare and continental prosperity."

This book will be of interest to all citizens who are interested in the pressing problems of our country and should prove invaluable to all conservationists.

**Big Hugh: The Father of Soil Conservation**, by Wellington Brink. Published by Macmillan Company, New York, N. Y. 167 pages, illus. Price \$2.75.

This thought-provoking story presents vividly the development of soil conservation as the bulwark of American agriculture, and of Hugh Bennett's part in that story. Bennett's crusade began when he was appointed to the old Bureau of Soils of the Department of Agriculture, where he gained much knowledge of American farm lands by conducting soil sur-

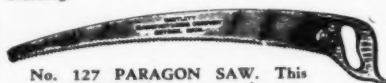
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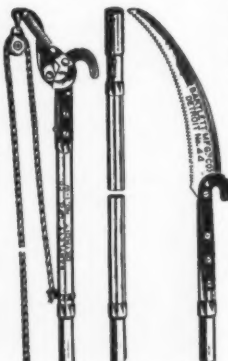


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veys. During the 1920's he engaged in an educational campaign of writing and lecturing on soil erosion. In 1935, when the Soil Conservation Service was made a permanent agency in the Department of Agriculture, he was appointed its first chief, a position which he still holds.

## Forum

(From page 2)

ing Agriculture and Interior reorganization bills as recommended by the Hoover Commission.

**Editors of American Forests** would be remiss, indeed, if we let escape without notice a change in name and format of this magazine's predecessor, *Forest Leaves*, which henceforth will be known as *Pennsylvania Forests*. From 1891 through 1897 *Forest Leaves* was recognized as AFA's official publication, and from it through a long chain of progression evolved the present-day *American Forests*. The Pennsylvania Forestry Association never has faltered through 65 years as a powerful spokesman for conservation through its magazine.

**Our Readers Say**—Dr. Miriam L. Bomhard, range conservationist with the U. S. Forest Service and an authority on palm trees, takes exception to two statements in Mabel Otis Robison's *Date Palms of the Coachella* (page 12 of March issue), although she compliments the excellence of photographs used. She says:

*Contrary to statements in Date Palms of the Coachella, date palms are easily grown from seed, and further, they are prolifically wind pollinated, accounting for production of many hybrid species. Miss Robison erroneously stated in her article that "date palms cannot be grown from seed" and that "nature does not provide for the pollination of these pistillate flowers, so this must be done by hand."*

We stand corrected.

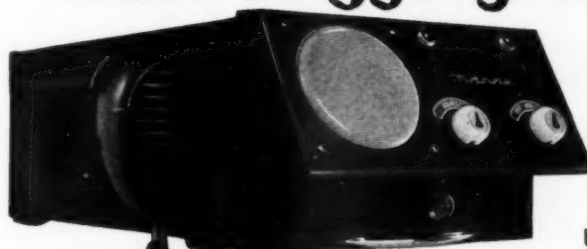
Belatedly, copies of letters written from Easterners to Oregon's Governor nor Douglas McKay commending his *Oregon States Its Case Against Socialized Forestry* (January issue) have reached this office. Mary G. Van Meter of Washington, D. C. writes:

*I have read with keenest interest every word of your article and particularly the history of Oregon's care of her forests as you have ably shown. I sincerely hope that the officials in charge of forests in every state in our Union will read this article and seriously take stock of their forests, taking care to keep them State-owned.*

In same vein G. A. Baker of Greenwich, Ohio says in part:

*It is heartening to know that at least one chief executive of the area menaced is aware of the threat of this octopus which is threatening to change the lives of all of us.*

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## U. S. Presses Rely on Canada

(From page 15)

products of Canada draw upon not more than 14½ percent of government-owned lands, a category which embraces about nine-tenths of the nation's timber resources. From that lesser slice of the forest zone are made 17,000 daily tons of newsprint, plus a heavy volume of other pulp and paper products.

One of the most pointless exercises is to hold inquest on the conduct of forest operations 25 and 50 years ago. Most of what we call the achievements of the past had full consent of public law and policy. They fitted the exploitative pattern common at the time to land settlement, grazing, fishing and hunting, and private commerce. When the pulp and paper industry of Canada reached full stature as the major supplier of U. S. newsprint, a critical assessment of its raw material position soon took rank with technical progressiveness in mill management. At first grudgingly, but with steady acceleration, a new regime of technical operation of woodlands started on its way. Staffs of foresters now supervise the woods operations of all newsprint-producing companies, one of these companies employing 120 graduates. Test forests and sample forest plots have been established under

company auspices and, in one case, a forest of 400 square miles was turned over as a laboratory for long term experiments on cutting methods most likely to combat insect infestation. Individual managements have set up silvicultural studies aimed at the improvement of their stands. Research has brought about better methods of wood harvesting, while mechanization has caused fuller utilization of the forest and, in some instances, better reproduction. Important advances also have been made in raising efficiency of logging equipment and eliminating waste.

When a single Canadian paper company spends \$600,000 to take inventory of its timberlands, with periodic re-examinations costing \$100,000 each, and uses a staff of a hundred or more technical foresters on its permanent strength, the obvious purpose is to place its woodlands in a state of dependable regeneration. Incentive towards rational management of forest tracts has gained immeasurably by the fact that most of Canada's paper mills could not be rebuilt today at less than three times their original cost and, furthermore, fresh unappropriated timber supplies have become almost impossible to locate. With the enhancement of mill values and mill products goes a like enhancement of the reservoir of raw material and, no less, the urge of management to give full rein to the technical forester. After all, forestry in Canada is hardly 40 years old. The first Canadian graduates began work in 1910. Last year, the schools of forestry graduated more men than in all the previous years of their existence.

As a whole, the Canadian pulp and paper industry has the best-managed forests in Canada. In substance this means that the industry, being a tenant of government-owned lands, is not sole arbiter of the lands occupied under license, but to the extent of its responsibilities and powers has made more progress in forest management than any other type of user. Under the system of timberland tenure common throughout most of Canada, a large forest operation represents a partnership with provincial government authorities who, in addition to taxes, impose regulations aimed to sustain the forest capital. The federal government, sharing none of the



provincial prerogatives, has contributed to forest industry through invaluable services in entomology and pathology, with a modicum of help in studies of forest regeneration. The recent federal adoption of the Canada Forestry Act promises amplification of cooperative aids to forest research, but up to the present the march of research has failed to match the capacity and eagerness of the paper companies to test recommendations on their own lands. Canadian forest operators spend about \$17 million a year on forest betterments and measures of fire prevention, wholly outside of logging costs. This exceeds expenditures for similar purposes of all governments, Federal and Provincial—hardly an equitable sharing of a joint responsibility. The "tenant" becomes pace-maker for the "landlord" in sustaining the only values that the contract contains.

According to the Society of American Foresters, forest management means "the application of business methods and technical forestry principles to the operation of a forest property." This implies that the business must show a profit, but it

(Turn to page 44)

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## Keswick Erases Erosion

(From page 21)

blue oak, ceanothus (Blue Blossom), oleander, Spanish broom, yellow pine, and Jeffrey pine." These species can withstand the terrific summer heat, and the extreme cold of winter in this area. So the Bureau of Reclamation crews not only have planted 137,000 acorns, but also 50,000 seedlings of the above varieties.

It will be a long haul, but it is expected that the area, 30 years without vegetation of any kind, again will be covered with the same heavy growth which characterizes the eastern slope of the watershed, which was not affected by the smelter fumes.

Reforestation is the final phase of the program, and in cooperation with the Forest Service, a good start already has been made.

Because of the nature of the terrain, which is rocky and steep, more than the usual difficulties were encountered with conventional planting tools. While directing a new crew using those tools, Gordon R. Dawson, field foreman in the Erosion and Drainage Control unit at Shasta, conceived an idea in March, 1949, for a more efficient planting instrument and after some experimentation he evolved the new tool.

The tool is of "T" bar construction, of tubing with a sharp steel point and a foot stirrup 12 inches from the

point to force the tool into the ground. Here are some of the advantages of Mr. Dawson's invention, which some foresters feel may revolutionize planting techniques:

It makes a round hole in the ground with firm side walls, without disturbing the ground around the hole. This factor is not only important in conserving moisture, but in preventing further erosion around the seedlings on the steep slopes. The invention has made possible further expansion of the program. Rocky ground previously had been written off as an impossible planting area with conventional tools. Now areas of this type are easily planted with the new device.

Foresters point out that the newly invented tool eliminates the planter's temptation to make shallow holes and jam the seedlings into the ground, leaving "U" shaped roots. Shallow planting such as this develops unhealthy trees which are easily washed out during heavy runoff.

Foresters also found that since use of Mr. Dawson's planter, there have been no signs of acorn loss from rodents. Previously rodents had a way of finding newly-planted acorns, apparently from mounds of fresh earth made by conventional planting tools.

The tool's value probably will not be limited to work on Bureau projects. Recently it was demonstrated before Forest Service officials from the Lassen, Trinity, and Shasta National Forests. A number of the tools, for which patent proceedings have been instituted, were loaned to these officials for test plantings.

Keswick Reservoir provides re-regulation of the Sacramento River below huge Shasta Power Plant, and also furnishes the water to turn the turbines of Keswick power plant's three generators totalling 75,000-kilowatt capacity. The Reservoir's capacity is 24,000 acre feet, and because of this relatively small storage, it is important that steps be taken to prevent heavy silting from tributary streams and rain season freshets.

The erosion control program has not been in progress long enough to determine results. But if the 55 cubic yards of earth and rock collected behind one dam in a single downpour is any indication, the program will go far in lengthening the useful life of Keswick Reservoir.



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## Davy and the Tree

(From page 13)

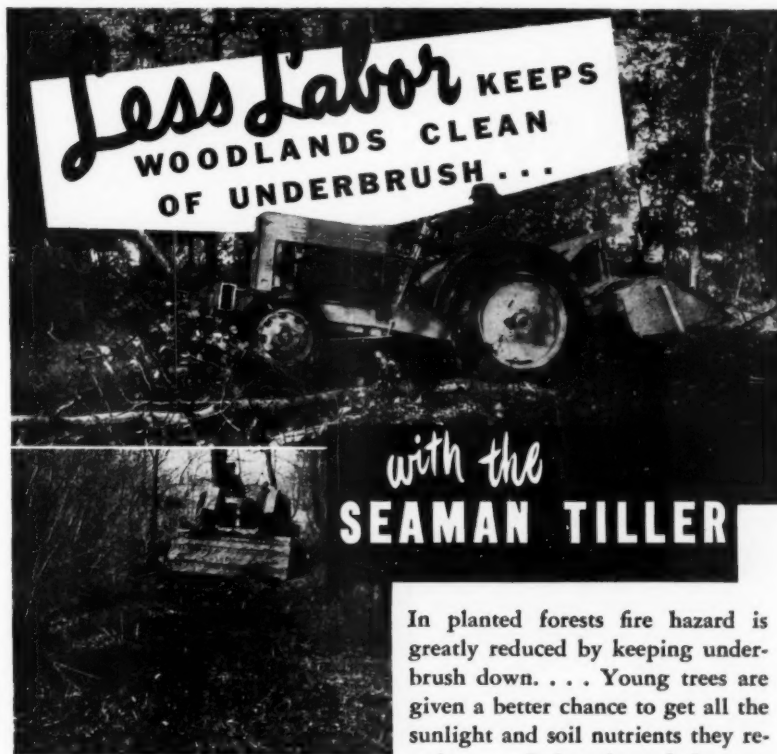
claims. With Uncle Ben they were worried about how far Teddy Roosevelt would go, if Judge Parker didn't beat him, in holding back local citizens from making free with government property. I could tell that Uncle Ben Cotter had a purpose of feeling the Yale ranger out and of cottoning up to him, if he could, and was feeding him a Davy Crockett story for a starter. And then I grew curious on the traveling tree story myself. . . .

You'll be bound to doubt what I had a mind to tell you (Uncle Ben sort of sighed resignedly, drawling on with his story of Crockett's Traveling Tree). That is, on how Davy made his dangerous way down the Columbia with that tree on his heels until he broke it to ride and met Sally Goodgrit and the rimrock wolves. He never dreamed of meeting up with anybody like Sally in that mighty wilderness. All Davy dreamed of for many a day and night was saving his hide and hair from the calico-horse Indians. He traveled nights down the Columbia and slept days to shun them.

The trouble was the traveling tree that had taken so to him. It would follow him the night long, then take root and stand guard over him while he slept all day. There in the sagebrush, of course, the lone piney kind of tree stood out as a signpost to the Indians for many miles around. Only thing that saved Davy at first was the Indians' mortal fear of a tree that could trot along like any cayuse, stop and scratch itself behind a bough with a long root, lie down and take a roll, and wade out in the water and catch salmon.

Superstitious! The poor, ignorant Indians didn't know botany and so they believed that the traveling tree was something supernatural. But in spite of their superstitions, each day the calico-horse Indians would venture up closer and closer to where Davy Crockett was trying to hide out and sleep. On the night trail Davy would scream every so often to scare away the Indians. They could not believe that a mortal man might be such a screamer. They thought it was the tree screaming.

So Davy came through with a whole hide on the Big Bend and fared on through the rapids of the Umatilla country. He kept going, helped now by the tree that was dogging him so,



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then hindered by it until he prayed for an ax to put the poor lone critter out of its misery. But that was before he broke it to ride.

Then Davy rode the tree in the river, roots first, all going dog-fashion till the water did boil, while Crockett stood or squatted on the trunk, his rifle, Killdevil, and his knife, Big Butcher, ready for all comers, hisself ever and again letting out a Mississippi River scream.

The country got rough. The calico-horse Indians gave up the chase, for now the river was speeding for the stretch that Lewis and Clark had named "the great falls of the rip-snorting old Columby." There Southwest Mt. Hood, named 50 years sooner by Vancouver, reared up a white head. The river narrowed and deepened between cruel walls of lava and broken basalt, and the river roared.

But the river made no bigger noise than the howls of the rimrock wolves as the night came down and the moon rose up. They harked back to the time of the rhinoceros, the mastodon and the three-toed horse in the Columbia country, to the time when, as they must have told you at Yale, there was forty times the water flowing down the gorge than there is today. The rimrock wolves had kept going by breeding in with more modern critters. The ones that Davy Crockett heard howl were a quarter cougar and some bear. They were truly raveniferous on this night. For a full 160 of them had treed themselves a human meal.

Now here is where I ask for the benefit of the doubt. Anybody around here will tell you, ranger, it ain't like me to lie—they'd better, anyway. I don't need to argue the point with you on what I've told so far, particularly about the traveling tree. You know your botany, you know your history, you're taken forestry at Yale, and so you know why they call it standing timber. That is plain matter-of-fact.

But now I am obliged to state what will surely sound incredulous, yet I vow you will look a long way in the history of Davy Crockett before you find anything that is truer.

Well, to plunge into it, Davy steered his water-logged and wornout tree into a wedge of the shore, as the night touched on dawn. It was where a branch emptied into the Columbia and had made a spread of sand and driftwood. There in the early light Davy spied the pack of rimrock wolves and the meal they were howling and slaving for.

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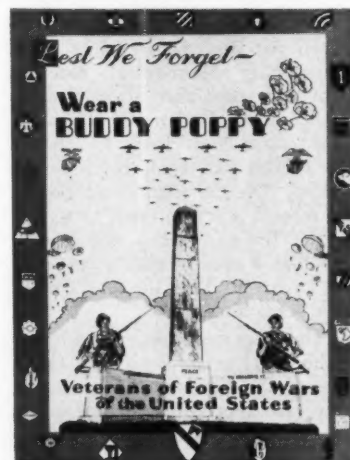
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The meal stood tall in a hollow stump snag. It had hair so red that Davy thought first the sun was coming up sudden in smoke. And that same hair stood on end from temper. This was all from a young human of the female persuasion who beyond any doubt owned the spunk to make a streak of lightning back down. In two blinks at the young woman Davy Crockett saw that she was a gal to stand up to her licklog, salt or no salt. A wolf-killer of a gal she was.

Evidently she had been killing wolves all night. From a pack of a hundred and a half more scarcely a score were left. Wolves were stacked up around the hollow snag she stood in. There were rimrock wolves with wrung necks. There were wolves with broken backs. Wolves with all legs missing.

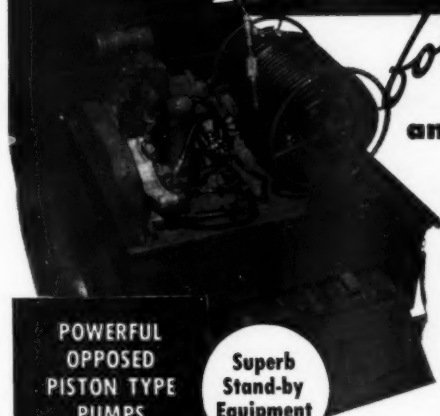
And now—spang!—there was another. This turn the girl had only spit through her clenched teeth. It knocked an eye out of a rimrock wolf and his brains leaked instantly after. Down he fell, toes turned up.

But now the wolves that were left began to make use of the stacks of dead wolves around the snag. Backing off, then taking runs up the carcasses, a wolf would leap a-foaming and a-gnashing at the gal's lily-white throat. But her only way was to squat deep in the hollow. It was not deep enough. The rimrock wolves, howling in hungry triumph, backed off to run up all at once in a circle on the meal that now seemed surely to be theirs.

Neither the wolves or the gal had seen Davy Crockett ride up on the dripping and limping tree. Davy stared, as he told it later, like one who was petrified. He declared that every poke the gal gave the wolves was a cupid's arrow to his heart. It was not until the circle of the wolves that were left closed over the fiery head of that gal in the hollow that he jumped.

The jump Davy took was up the tree. At the same time he whistled it on. Clean to its hundred-foot top he skinned. Up to the wolves limped the tree, and there stopped to let its top bend over with Davy. He swung over, hanging by his feet, and the trunk bent well-nigh double, until he was able to grab the gal and swing her up aloft and secure. Then the poor old wornout tree staggered and hobbled off into the river, where it simply fell over and floated into the heaving, snorting and foaming stream. Back of them the few live wolves that were left could only stand

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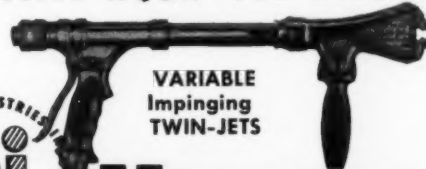
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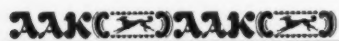
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on the dead ones and howl with flusteration.

The river boiled on into what the French fur traders had long ago named The Dalles. Where the fagged-out and chawed-up traveling tree staggered back into the water the river was around half a mile wide. Down in The Dalles it had to hammer between basalt walls no more than seven hundred feet apart. It had made Lewis and Clark think of a "stupeneracious thing that was agitated, swelling, boiling and whirling in all directions." That was how Clark wrote it down. You are a Yale forester, and I don't need to describe to you what a trip like that could do to a tree—a tree that was low-spirited and none too strong in the first place, the fading remnant of a dying breed. Already bunged up and barked off until it was fairly girdled, it was a wonder that the tree could put up any kind of struggle at all. But it did.

All Davy and the gal could do was hang on, hug, and hope. They did more hugging than anything. Davy could not help but fall in love with such a strapping fine young wolf-killing woman. And when she felt the hug of Crockett, which had caved the ribs of many a grizzly bear, her heart turned to sugar.

Uncle Ben Cotter stopped there and made a lot of fuss about loading his pipe. It was a cue for the ranger to speak up and ask how it all came out. But young Ronald Burpee Twiss only nodded his head solemnly in the twilight, and when he spoke it was in a ringing tone of hearty admiration.

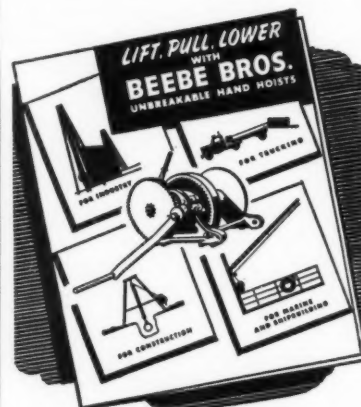
"Why, Mr. Cotter," he said, "you recite that story of the Abner W. Goodgrit Expedition better than I ever heard it at Yale. There every student has to learn it. Maybe these other men don't know that Professor Goodgrit was Yale's first forestry teacher. He made his famous voyage to the Columbia wilderness about four years after David Douglas and brought his daughter, Sally, along. And you have her right, Mr. Cotter—a wonderful wolf hunter. Professor Goodgrit, of course, made his voyage only to hunt down a specimen of *Collapsosfemuris geocatapetes*—"

"Of what?" Uncle Ben broke in. "What's that you say?"

The ranger repeated the words, then took out a big notebook, wrote them down, and tore out the page to give to Uncle Ben.

"As they tell at Yale," the ranger continued, "Davy Crockett brought Professor Goodgrit back his daughter safe and sound, and the specimen of traveling tree he was after, to boot.

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3. Drown your campfire, then stir and drown again.
4. Ask about the law before burning grass, brush, fence rows, or trash.

It lived on the voyage back and had the run of Yale for years."

Uncle Ben was only sitting there, mumbling the Latin words to himself. Then he got up and shook the ranger's hand.

"Come again," he said. "Come often."

## Camp Stoves

(From page 20)

but the stove shown in Fig. 4 is designed exclusively as a tent heater.

A ten-gallon oil can of the funnel top variety, often used on farms, is the basis for this stove. Cut a door in the same manner as the other two stoves. When affixing the stove pipe, enlarge the funnel opening in the top to allow more smoke passage. It is wise to burn out the inside carefully with a paper fire, in the event that the can has contained gasoline, before using inside a tent. Set on stones or bricks, this stove makes an ideal tent heater.

For heating a small, dirt-floor tent it isn't necessary to construct a stove, provided you have a metal bucket handy. A bucket heater requires no smoke outlet and is suitable for overnight stops.

Turn the bucket upside down on the ground and mark a circle around the rim. Following the line you have drawn, dig a hole about a foot and a half deep. Fill this hole with coals from a fire built outside the tent. The more coals placed in the hole the longer the bucket will radiate heat. Place the bucket upside down over the hole and press damp earth around the edge to keep in the smoke and fumes. The bucket heater, when filled with hardwood coals, will give off heat for several hours with no fire danger.

There is one caution in using stoves which require smoke pipes. If used inside a tent, make sure the pipe does not come into contact with the tent canvas. The best method is to use an asbestos ring or a metal collar to lead the pipe through. Be sure to inspect the tent ring from time to time for signs of scorching.

These are but a few of the types of cooking and heating stoves which can be constructed for camp use. The camper can build these stoves, or with a little ingenuity, devise other improvisations and improvements on them, all of which will save him quite a few dollars and will adequately solve his cooking and heating problems.

# Convenient, Easy Way To Peel Pulpwood...

## ATLAS "A"

(SODIUM ARSENITE LIQUID)

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Hardwood trees treated with Atlas "A" during the sap-flow season are not only killed but the bark is permanently loosened. As a result, the bark can be easily peeled at a convenient time and the pulpwood can be harvested the year 'round.

This method has been tested by one of the countries leading pulpwood manufacturers and is recommended as a cheap, effective way for bark removal.

One gallon of Atlas "A" is sufficient to treat 300 to 500 trees. It is quickly applied with a paint brush to a sap-peeled girdle around each tree.

NOW is the time to use Atlas "A"! Complete information will be sent promptly.



ARMSTRONG FOREST CO.

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### THE AMERICAN FORESTRY ASSOCIATION

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### Save-the- Redwoods

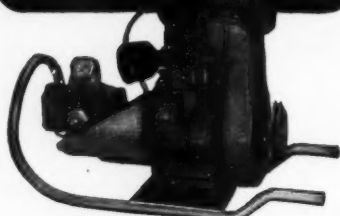
Send 10 cents each for these attractively illustrated pamphlets: "A Living Link in History," by John C. Merriam... "Trees, Shrubs and Flowers of the Redwood Region," by Willis L. Jepson... "The Story Told by a Fallen Redwood," by Emanuel Fritz... "Redwoods of the Past," by Ralph W. Chaney. All four pamphlets free to new members—send \$2 for annual membership (or \$10 for contributing membership).

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PORTABLE FIRE-FIGHTER!



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**PACIFIC** Marine Supply Co.

FIRE EQUIPMENT DIVISION

SEATTLE 1, WASHINGTON

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eliminate waste paint,  
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### ROSE'S TREE MARKING PAINT

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- needs no thinner
- white or yellow

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PAINT CO.**  
1222 Taylor Street  
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CONSULT US FOR SPECIAL  
POSITIVE-IDENTITY PAINT

## Canadian Newsprint

(From page 37)

surely implies with equal force that the expenditures necessary to keep a forest productive must not be capitalized but charged to costs of harvesting the present crop. To this principle and practice Canadian foresters, as a rule, adhere. It means a steadily-mounting self-imposed tax upon forest industry that becomes woven, year by year, into forest betterment. This self-taxation for long term improvement of timberlands presupposes a reasonable margin of profit on the total enterprise. When that margin no longer is present in a wood-using industry, the axe of self-preservation is prone to fall on those outlays having to do with future benefits. The present era of prosperity in the Canadian pulp and paper industry is hailed by foresters as a godsend to forestry, for it fastens a high premium on the log supply and justifies the utmost diligence in replenishment. If the two-cent Kansas paper jumps to five cents and a block of space costs more to buy, there's at least the compensation that more newsprint will be raised on Canadian woodlands and the day of "exhaustion" indefinitely postponed.

## All the Angles

(From page 23)

license pays for restocking the lakes and supplies sportsmen with a healthful, stimulating sport."

"What will happen to me in court?" my wife boo-hoed.

"Well, ma'am, in this state you can be liable for a \$100 fine and you can also be put in the county jail for six months."

The warden, an otherwise human looking fellow, looked grim. I was suddenly pretty scared myself.

"You're kidding!" I exclaimed.

"No sir. The laws are pretty strict here. That's why we can have such good fishing."

He started his engine again and moved off. In his wake, he left two unhappy people.

"I'll never go fishing again!" my wife sobbed.

"Gee, a hundred bucks!" I said. Then I brightened. "Maybe they'll just send you to jail!"

"Oh! Boo-hoo, take me home!"

The next day we packed up the two

## 20 Million Trees a year



Seedlings for Forest and Christmas Tree Plantings. Complete line. As low as \$16.00 per 1,000. Strong, sturdy, well-rooted seedlings and transplants for Conservationists, Timber-Operators, or owners of idle land. **MUSSER TREES ARE GROWING IN ALL 48 STATES.** For Special Xmas Tree Growers' Guide, and complete Planting Stock Price List. Write Box 27-E.

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Fir, Pine and Spruce in variety  
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Firs, Arborvitae and Other Conifers. We raise all our trees in our own nurseries.  
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Norway Spruce, Red Pine, White Pine, Scotch Pine, White Spruce, Black Hill Spruce, etc. Prices are reasonable and the trees are **GUARANTEED TO LIVE.**

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Fryeburg, Maine  
Dept. F.



kids and went to the courthouse. For two hours the kids raced up and down the halls while we waited. Fussy-looking clerks kept popping their heads out of hall doors to see who was getting scalped.

"Ma," asked our youngest. "What time you going to jail?"

I guess nobody in the courthouse could stand it any longer. The whooping and hollering was awful . . . especially after the kids got hungry.

Anyway, somebody finally told my wife all she had to do was buy a license and let that be a lesson to her.

"Some nerve!" said my wife as we climbed back in the car. "That fresh game warden had plenty of nerve scaring me like that. I'd like to tell him a thing or two!"

"All I can say," I replied, "is that it is lucky that you are a woman. You got off easy."

"I suppose I did. But now I'll have to spend the rest of our vacation out in the boat with you so I can catch enough fish to eat so we can save enough money on meat to pay for the license."

"Oh no!" I screamed.

## Secretaries Battle

(From page 12)

Seattle stadium, President Harding delivered his long-awaited address which laid down the administration's policy for Alaska. Gifford Pinchot himself never packed more conservation into a single speech. It was almost the last official act of Warren G. Harding.

Henry C. Wallace followed his chief into the beyond two years later. The day of his funeral in the White House was one of the darkest in the lifetime of the Department of Agriculture. Every one of us not only mourned the leader who had won our admiration but felt the sharp personal grief of losing a loyal friend. Many grown men wept unashamedly in the White House that morning.

The Albert Fall fiasco left the National Forests stronger in public standing than before. The foundation work of Pinchot and Roosevelt was secure. "Conservation" again became strong political medicine. The Interior Department tried hard to live down its lapse from grace. Secretary Wilbur publicized the claims of Interior as the first major conservation agency of the government. Secretary Ickes, a few years later, tried to change the name of his Department to the "Department of Conservation."

## CONTROL FIRES QUICKLY Save Costly Fire Losses!

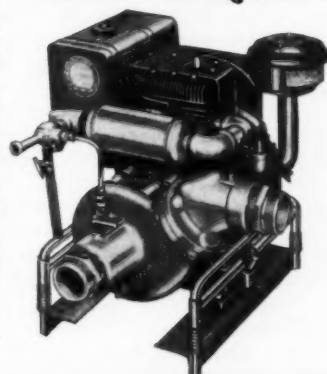
### The **DUAL** Fire Fighter pump

Relays water to the truck pumper or fights fires direct. Quick action with the Dual Fire Fighter has won the fight against hundreds of fires which otherwise would have caused costly damage.

Read what one fire chief says, "Had a rather serious woods fire . . . had eight fire departments and several hundred men on the lines for two days. Dropped a suction line from our Gorman-Rupp into what appeared to be a limited amount of swamp water, pumped continually for over three hours during which the twin 1½" lines saved the schoolhouse after which it was carried to assist in saving a set of farm buildings." (Copy of complete letter on request).

Quick action with the Dual Fire Fighter may assist YOU in saving costly fire losses.

Write for Bulletin No. 9-FD-11



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- ★ Uniform chips with minimum sawdust
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- ★ May be easily moved from one location to another
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- ★ Minimum maintenance

This portable unit is the answer to utilization of wood resources. Smaller trees, limbs, branches, etc., instead of being wasted, can now be converted into useable chips, and brought to the user . . . furnished either skid mounted, or trailer mounted, so that it can be moved from one location to another as the tree cutting progresses. Capacity varies from 15 to 20 cords per hour, depending on size and kind of wood. An application of MURCO Chippers that have been used successfully for many years to produce pulpwood chips in the paper industry.

In addition to the 65" 10 knife chipper illustrated, this portable chipper can be furnished in 50" 8 knife and 50" 4 knife.

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Here  
IS THE  
60"-10KNIFE  
CHIPPER

**D. J. MURRAY MANUFACTURING CO.**  
MANUFACTURERS SINCE 1883

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## Association By-Laws Amended

By action of the Board of Directors, meeting in New York City on February 23, sections of five articles of The American Forestry Association By-Laws have been revised and amended. Authority to revise the By-Laws was given the Board in the following amendment approved by membership vote in December, 1944:

*"Article XIII—These By-Laws may be amended by the Board of Directors at any regular or special meeting, provided notice of the proposed amendments shall be given to all Directors in writing at least thirty days before the date of such meeting. These By-Laws may also be amended by the members in the following manner. Any amendment proposed in writing over the signatures of fifty or more members, shall be submitted to the members with the next succeeding election ballot and shall be adopted if it receives the affirmative vote by mail of a majority of the members voting thereon. All amendments shall be published in the magazine within ninety days after adoption."*

The revised sections follow. Words and sections deleted by the Board are indicated by a line drawn through them; changes and amendments appear in italics.

A complete copy of the By-Laws will be mailed to any member on request.

### ARTICLE III—Members and Dues

(2) Patrons, who shall be individuals, ~~organizations, or companies~~ who shall contribute One Thousand Dollars or more at one time to the permanent fund of the Association;

(3) Life Members, who shall be individuals, ~~organizations or companies~~ who shall contribute to the funds of the Association at least One Hundred Dollars at one time or in such installments as the Directors may approve. *Life and Patron Memberships are not transferable.*

Sec. 5. All members shall be entitled to one vote each at the meetings of the Association, or by mail if so provided, ~~and to hold office therein.~~ *Individual members shall be eligible to hold office in the Association. A company may designate one of its representatives who shall have the same voting powers as the individual member.*

### ARTICLE IV—Board of Directors

Sec. 1. The Board of Directors shall consist of fifteen *individual* members elected by the members of the Association together with the President, ~~and~~ Treasurer and last prior President during the year next succeeding his retirement from such office of the Association serving as ex-officio members. *It The Board of Directors shall have the direction and management of the affairs of the Association, the determination of its policies and the control over and disposition of its funds and property. [All members shall be eligible as directors.] The Board of Directors shall cause an independent audit of the Associa-*

*tion's accounts to be made at least once in each year.*

Sec. 2. The Board of Directors shall select each year a Committee on Elections, whose names and addresses shall be published in an issue of the magazine not later than during the month of October. The Committee on Elections shall consist of three members of the Association in good standing for at least three years, ~~who are widely known for professional or industrial attainments or public service in forestry, and who represent as far as practicable the professional, industrial, and public interests embraced in the work and objects of the Association.~~ Not more than one member of the Committee on Elections shall be, at the time of selection, an officer of the Association. Suggestions for nominations for any officer of the Association to be elected at the next annual election of officers may be submitted to the Committee on Elections by any member of the Association; nominations for such officers may be made by not less than twenty-five members of the Association, signed by the members submitting them. All suggestions and nominations should be addressed to the Committee on Elections at the main office of the Association and must be received by the Committee on or before November 1. The Committee on Elections shall nominate ~~a candidate at least one candidate and not more than two candidates~~ for each officer to be elected at the next annual election of officers of the Association. The candidates nominated by the Committee on Elections, together with any other nominations made by not less than twenty-five members of the Association, and which have reached the Committee on Elections prior to November 1, shall be published in the December issue of the magazine, with the names of members of the Association making the nomination appended to the nomination of any such candidates. The Secretary of the Association shall cause a ballot to be printed containing the names of all candidates nominated by the Committee on Elections and by any group of twenty-five or more members of the Association as hereinbefore provided and shall mail such ballots to all members of the Association having the right to vote on or before December first. The members of the Association shall elect the officers by mailing to the Secretary in sufficient time to be received on or before December 31 a ballot containing the names of the candidates voted for. Every ballot shall contain the name and address of the member submitting it. The ballots shall be counted by three tellers appointed by the Committee on Elections, who shall decide any questions as to the ballots submitted and who shall officially certify the total vote cast. A majority of the ballots cast shall be sufficient for election.

### ARTICLE V—Committees

Sec. 1. **Executive Committee.** The Board of Directors may appoint ~~five~~ four members of the Board to act together with the President as an Executive Committee which shall have and may exercise the powers of the Board except the powers of amendment of By-Laws or of filling a vacancy in any office, during the intervals between meetings of its Board.

Sec. 2. **Finance Committee.** The President may appoint three members of the Board of Directors to act as a finance committee in advising with the ~~Secretary~~ Executive Director and Treasurer with reference to financial matters, and to exercise whatever powers are conferred upon it by the Board of Directors.

### ARTICLE VI—Officers

Sec. 1. The officers of the Association shall be a President, two Vice-Presidents, one Executive Director, twenty-one Honorary Vice-Presidents, fifteen elected and two or *(during the year following the retirement of a President as provided in Article IV, Section 1) three* ex-officio Directors, a Treasurer, a Secretary, and such other officers as the Board shall from time to time determine. The President, the Honorary Vice-Presidents and the Treasurer shall be elected annually by the members of the Association; the two Vice-Presidents shall be elected annually by the Board of Directors. The Executive Director and the Secretary shall be elected by the Board of Directors to serve whatever term it may designate. All officers shall serve until their successors are elected.

Sec. 2. Members of the Board of Directors shall be elected ~~for the following terms: At the December 1945 election one Director shall be elected for a term of four years, one for a term of three years, and one for a term of two years. At the December 1946 election one Director shall be elected for a term of three years, one for a term of two years, and one for a term of one year. At the December 1947 election and at each succeeding annual election five Directors shall be elected for terms of three years each, so that the terms of five Directors shall expire at the end of each calendar year. If vacancies occur in the Board of Directors, Directors shall be elected at the next annual election of officers to fill such vacancies, in each case for the unexpired term of the Director whose position has become vacant (as shall have been determined by the original election of such Directors). As follows: At each annual election five Directors shall be elected for terms of three years each and in addition Directors shall be elected to fill any vacancies which may exist, in each case for the unexpired term of the Director whose position has become vacant.~~

### ARTICLE VII—Duties of Officers

Sec. 4. **The Treasurer**—The Treasurer shall have the custody of the funds of the Association, ~~shall countersign all checks,~~ shall perform such other duties in connection with the finances of the Association as the Board of Directors may order, and shall present to the Board of Directors at their first meeting each fiscal year a statement showing the receipts and disbursements of the Association for the preceding fiscal year and its assets and liabilities. The annual financial report for any fiscal year shall be ~~printed in an issue of the Association magazine published not later than three months following the close of the fiscal year, transmitted to the members at such time within the following year and in such manner as shall be determined by the Board of Directors.~~

~~The Board of Directors may appoint an Assistant Treasurer to countersign checks, in the absence or disability of the Treasurer, or during any vacancy in that office, and to perform such other duties in connection with the finances of the Association as the Board may require. Checks shall be signed by the Executive Director or by such other officer or agent of the Association as shall be designated from time to time by the Board of Directors. Checks shall require the signature of two officers or agents of the Association. All officers and agents having such power to sign shall be designated from time to time by the Board of Directors and shall be bonded.~~

## NEWS IN REVIEW

The West Virginia state legislature has passed a law requiring hunters and anglers using the National Forests to purchase special licenses costing one dollar each, in addition to their regular statewide licenses, according to the Wildlife Management Institute. Funds from these special licenses will be used entirely for fish and wildlife management on lands of the Monongahela and George Washington National Forests lying within the state.

**Conclusions and recommendations** by Col. William B. Greeley on a 1950 study of forestry activities in Wisconsin recently were made public by the state's Conservation Commission. Col. Greeley, secretary of the West Coast Lumbermen's Association and formerly chief of the U. S. Forest Service, made the survey at the commission's request.

Salient among his recommendations are: 1.) A state forester should be placed in charge of all forestry activities of the commission, reporting to the director; 2.) extension of forestry protection districts as rapidly as possible to cover the entire state; 3.) completion of the land and forest inventory, followed by the re-statement of a positive land-use policy aimed particularly at marginal farm lands, unproductive forest lands and critical watershed areas; 4.) a study of possible simplification of provisions and administration of the forest crop law; 5.) continuation of state parks administration in the same division with state forests, but more aggressively developed plan-wise timber growing and harvesting on state forests; 6.) emphasized publicizing of the idea "forestry and recreation" as multiple use objectives of forest management and adoption of more literature to aid woodlot forestry in the state.

A nature magazine written exclusively for youngsters is now being published monthly by the American Museum of Natural History, New York City. Titled *The Junior Natural History Magazine* it presents scientifically accurate information concerning everything in the natural world from earthquakes and weather to the higher mammals.

**Top award** of the Izaak Walton League of America was presented to Hugh B. Bennett, chief of the U. S. Soil Conservation Service, at the League's 29th annual convention April 6 in Cincinnati. Honor roll awards were won by Michael Hudoba, Washington editor of *Sports Afield*; Tom Wallace, editor emeritus of the *Louisville Times*, and Ed Dodd, cartoonist and author of the comic strip *Mark Trail*.

**Three prominent forestry figures** died recently, one in an automobile accident. Horace J. Andrews, U. S. Forest Service regional forester at Portland, Oregon, was killed in an auto-truck collision in Fairfax County, Virginia, March 25. He was 59 years old. Andrews had come to Washington, D. C. to attend a meeting of regional foresters and directors of forest experiment stations. He entered the Forest Service in 1930 and had been regional forester at Portland since March 1, 1943.

Percy J. (Pete) Hoffmaster, 58, conservation director of Michigan and a national conservation authority, died March 19 in Lansing of a heart attack. He was father of the state's public parks system which now includes 78 parks. During the 30 years Hoffmaster was associated with the Conservation Department he took an active part in reforestation projects which at present embrace 2,500,000 acres. He was a member of the Water Resources Commission, the Aeronautics Commission and the Soil Conservation Commission.

John B. Ferran, executive secretary of the Louisiana Forestry Association, died March 21 of a heart attack. Ferran, 36, was a Tulane University graduate, and served as public relations director of the New Orleans Dock Board before joining the Forestry Association in 1948. Following his appointment as executive secretary, the Association embarked on its "Keep Louisiana Green" campaign, an intense publicity and education program aimed at reforestation and prevention of forest fires.

J. H. Kitchens, Jr., chief of the Forestry Commission's Information and Education program, is serving as temporary executive secretary until Ferran's successor has been selected.

## THE AMERICAN FORESTRY ASSOCIATION

D. C. Everest • President  
W. J. Damtoft • Vice-President  
Kent Leavitt • Vice-President  
S. L. Frost • Executive Director  
John M. Christie • Treasurer  
Fred E. Hornaday • Secretary

### BOARD OF DIRECTORS

W. J. Damtoft, 1952—North Carolina, Southern Pulpwood Conservation Association.  
Samuel T. Dana, 1953—Michigan, School of Natural Resources, University of Michigan.  
Karl T. Frederick, 1952—New York, New York State Conservation Council.  
William B. Greeley, 1951—Washington, West Coast Lumbermen's Association.  
Don P. Johnston, 1952—North Carolina, North Carolina Forestry Association.  
Kent Leavitt, 1951—New York, National Association of Soil Conservation Districts.  
George W. Merck, 1953—New Jersey, President, Vermont Forest and Farmland Foundation, Inc.  
Walter H. Meyer, 1951—Connecticut, Yale School of Forestry.  
Randolph G. Pack, 1952—New York, Charles Lathrop Pack Forestry Foundation.  
Lloyd E. Partain, 1951—Pennsylvania, The Curtis Publishing Company.  
A. C. Spurr, 1951—West Virginia, President, Monongahela Power Company.  
Edward P. Stamm, 1953—Oregon, Logging Manager, Crown Zellerbach Corporation.  
James J. Storrow, 1952—New Hampshire, Society for the Protection of New Hampshire Forests.  
Vertrees Young, 1951—Louisiana, Executive Vice-President, Gaylord Container Corporation.

### HONORARY VICE-PRESIDENTS

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Folke Becker—Wisconsin, President, Trees of Tomorrow, Inc.  
Raymond J. Brown—New York, Editor, *Outdoor Life*.  
Bryce C. Browning—Ohio, Secretary-Treasurer, Muskingum Watershed Conservancy District.  
Mrs. E. E. Byerrum—Illinois, Chairman, Conservation Committee, General Federation of Women's Clubs.  
R. A. Colgan, Jr.—District of Columbia, Executive Vice-President, National Lumber Manufacturers Association.  
E. J. Condon—Illinois, Sears, Roebuck and Company.  
L. A. Danse—Michigan, Member, President's Water Pollution Control Advisory Board.  
J. N. Darling—Iowa, Conservation Cartoonist.  
Walter E. Disney—California, President, Walt Disney Productions, Limited.  
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Charles F. Evans—Georgia, President, Society of American Foresters.  
Ira N. Gabrielson—District of Columbia, President Wildlife Management Institute.  
Walter R. Humphrey—Texas, Editor, *The Fort Worth Press*.  
Lee Muck—District of Columbia, Department of the Interior.  
Paul E. Tilford—Ohio, Executive Secretary, National Arborist Association, Inc.  
E. W. Tinker—New York, Executive Secretary, American Paper and Pulp Association.  
William P. Wharton—Massachusetts, President, National Parks Association.  
George C. Walde—Connecticut, Editor, *The Bridgeport Post and Telegram*.



# Editorial

## AFA'S NEW PROJECT FOR EUROPE—AND YOU

In recent weeks The American Forestry Association has been invited by the Economic Cooperation Administration to assist in arranging for a group of European wood-using technicians and executives—about 75 in number—to visit representative timber-using industries in this country. This group, to be known as the Timber Industry Team, will begin arriving about June 1 for a stay of approximately a month or six weeks. It will be sponsored by ECA's Technical Assistance Program of Marshall Plan aid for the democratic countries of Western Europe, although each visitor will pay his own way.

Fortunately, AFA has found it possible to cooperate in this public service project. That the Association's role will be executed to its credit, Dr. George A. Garratt has been prevailed upon to arrange his duties as dean of the School of Forestry at Yale University so he may serve as project director. Dr. Garratt's work in forest products has earned him a splendid reputation among wood-using industries, and he is thus particularly suited for the task at hand.

Progress of this project will be reported upon at greater length in future issues of *American Forests*, but a brief outline of the types of industries and production techniques the European experts wish to see while in our midst will serve to point up implications in the utilization phase of conservation which are infrequently examined or taken largely for granted.

For instance, two groups of the Timber Industry Team will concentrate their studies within the furniture industry, Group I confining itself to mass production and Group II to medium and small size factories and workshops. It is to be expected that Europeans might think they have something to learn from us on mass production, since it is a matter of record that output per worker in most of their countries is approximately only one fourth that of an American worker. Our medium size plants, too, would be expected to prove enlightening from a standpoint of modern tools, equipment and production line methods. It will be interesting, however, to learn their reactions when they visit our very small industries (such as handicrafts in the New England states). Such small industries had their origin on the continent. Do they now differ materially from their European counterparts?

Two other groups will concern themselves with the building industry, both as to the use of timber

and its marketing problems. Without doubt, recent developments in utilization of waste, such as sawdust, chips, shavings, slabs and edgings should give visitors an insight on how to make timber supplies go further. Prefabrication and new gluing methods in factory made houses have much to offer, too.

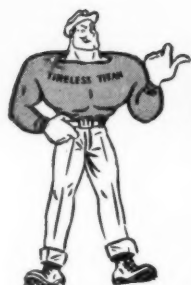
Packaging, another industry which too many take as a matter of course, has been selected as a special field of study by two segments of the Timber Industry Team. They are interested in all its phases, from cases and reinforced crates for fruit and other products to casks and cooperage, drums and vats. Probably few realize fully America's ingenuity in turning out packages from hardwood, softwood, seasoned and unseasoned timber, cellulose, fiberboard and paper.

Problems of the woodware industry (woodworking and finishing) and of industries engaged in impregnation, bakelization and laminated timber will occupy the attention of the last of eight groups making up the Timber Industry Team. Both these last groups are interested in recovery of waste and high frequency gluing, and in technical research, uses of improved timber products and creating markets for new products. Europe's woodware specialists, while studying our new techniques and production methods, will also wish to measure how far their craftsmen may be able to compete with industry in their field, but certainly when it comes to bakelized products for electrical and other equipment and to laminated timber for building and furniture uses they will find developments against which substitutes cannot compete.

Naturally, it is not intended that American industry reveal secret processes of any type. Rather it is hoped that by demonstrating to European technicians our practices in production they can increase their rate and total amount of production with substantially their presently available plants. This is a goal which must be met if these countries are to restore their economic independence or rearm for their and our mutual self defense.

In the course of this program, the visiting Europeans will most certainly learn much from us, and we will learn much from them. From the trend of their interests won't we, too, learn to appreciate how much conservation owes to industry for its utilization advances? If we can further acquire their secret of placing forests on so high a pedestal that fire prevention and woodland management have become a fetish, our worries will be at an end.





# Advanced Model Chain Saw Joins **TITAN** Line!

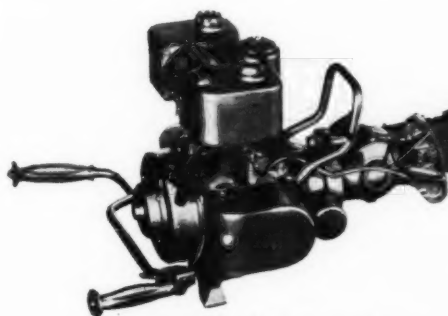
TIRELESS TITAN, that mighty logger, points with pride to the newest member of the TITAN family—the powerful, versatile, lightweight TITAN Series 60. See the new TITAN Series 60 in action—as a two-man or one-man power chain saw—see it fell trees, buck, limb, square timbers—do every kind of wood-cutting job. Feel how easy it is to handle—how smooth and fast to operate.

The TITAN Series 60, proudly joining the one-man TITAN Series 40 and the big, 12-horsepower two-man TITAN Series One-Twenty, offers you such advantages as these: 35-lb. motor, single cylinder, two cycle, compact balanced, protected . . . 26" to 60" straight blade bars or a 19" capacity bow . . . toughest alloy steel chain to cut faster, stay sharp longer . . . fully automatic clutch, self-winding starter, dust and water-proof magneto, full 360 degree swivel device.

Ask your dealer for a TITAN demonstration today.



TITAN Series 40 available with 18" to



TITAN One-Twenty two-man saw—12 h. p. for big timber.

**TITAN CHAIN SAWS, Inc.**  
**SEATTLE 4, WASHINGTON**

TITAN offers you the complete line of power chain saws, attachments and accessories.



Sgt. Robert Chrisman levels a field at the eastern end of the Davison airstrip, Ft. Belvoir, Va., with a "Cat" D7 Tractor. In the background are four "Cat" No. 12 Motor Graders completing runway.

## THE MILITARY GETS FIRST CALL

THESE "Caterpillar" earthmoving machines, working on the runway of the Davison airstrip at Ft. Belvoir, Va., show at a glance where a lot of "Cat" equipment is going these days. And that's how it's got to be.

Defense Rated Orders get first call as America's military establishment prepares for what may come. The urgent build-up of our power has meant drafting machines as well as men. An ever-increasing flow of "Caterpillar" equipment and parts is going to the support of America's fighting men and to defense projects.

This means that there already exists a scarcity of "Cat" equipment and engines for civilian use. So it is to *your* advantage to make the machines you

now have *last*. You can keep them on the job longer by doing these things:

- 1 Follow sound and recommended operation and maintenance procedures to the letter. Read and reread your Operator's Instruction Book.
- 2 Make full use of your "Caterpillar" dealer's facilities for servicing and rebuilding machine parts.
- 3 Anticipate future parts needs, then contact your dealer and let him help. But *don't* buy or order parts you don't actually need.

Caterpillar Tractor Co. will do everything possible to maintain every "Caterpillar" machine in the field, to provide new machines as fast as possible, and to allocate them as fairly as possible.

CATERPILLAR TRACTOR CO., PEORIA, ILLINOIS

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DIESEL ENGINES • TRACTORS • MOTOR GRADERS • EARTHMOVING EQUIPMENT

